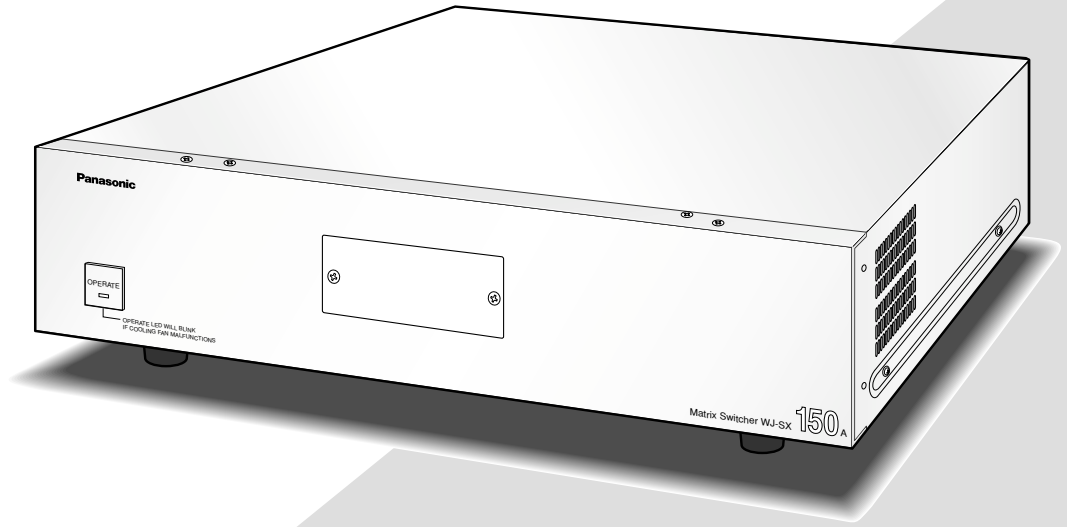
Panasonic®

# Matrix Switcher
# Operating Instructions

Model No. WJ-SX150A

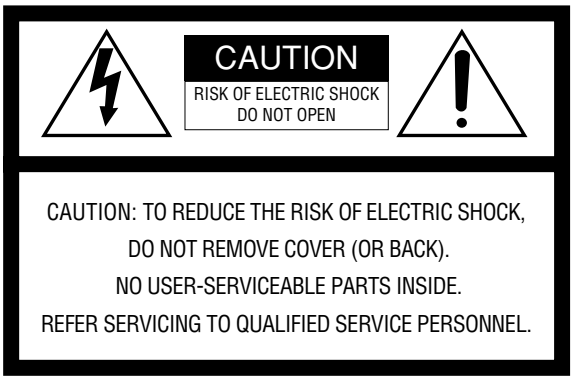


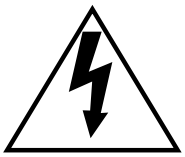

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

# ENGLISH VERSION

**Caution:**

Before attempting to connect or operate this product, please read the label on the bottom.



SA 1965

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



SA 1966

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Power disconnection. Unit with or without ON-OFF switches has power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. Unplug the power cord to disconnect the main power for all unit.

For U.S.A

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The serial number of this product may be found on the bottom of the unit.
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. WJ-SX150A

Serial No. _____

**WARNING:** To prevent fire or electric shock hazard, do not expose this appliance to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

# IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not use near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the points where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-overs.




13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

# CONTENTS


IMPORTANT SAFETY INSTRUCTIONS ..... 3
CONTENTS ..... 4
PREFACE ..... 6
FEATURES ..... 6
PRECAUTIONS ..... 7
DOCUMENT CONVENTION ..... 7

**FEATURES OF THE MATRIX SWITCHER SYSTEM ..... 9**
MATRIX SWITCHER SYSTEM DESCRIPTIONS .....10
■ Crosspoint Switches .....10
■ Monitoring Mode .....10
■ System Control .....11
■ Example of a SYSTEM with Basic Functions .....12
TERMINAL MODE DESCRIPTIONS .....14
■ Log-in/Log-out .....14
■ Monitor-related Functions .....15
■ Camera-related Functions .....16
■ Alarm-related Functions .....17
■ Timer Event .....18
■ System Status Table .....19
■ Setup Procedures .....19
■ Extended Functions .....19
NOTIFICATION ABOUT PS·DATA CONTROLLER OPERATION .....22

**DETAILED PRODUCT DESCRIPTION .....23**
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS .....24
■ WJ-SX150A Matrix Switcher .....24
■ WV-CU360C/CU360CJ System Controller (TERMINAL MODE) .....26

**INSTALLATIONS AND SYSTEM CONNECTIONS.....31**
INSTALLATIONS .....32
■ Mounting into the Rack .....32
■ Installing the Multiplexer Board MUX .....32
SYSTEM CONNECTION EXAMPLES .....33
■ Basic System Connection .....33
■ System Expansion Connection .....33
CONNECTIONS .....36
■ Connection with the Camera Sites .....36
■ Connection for RS-485 Type Camera .....37
■ Connection with the Monitors .....38
■ Connection with the System Controllers .....39
■ Connection with the Alarm Sensors .....39
■ Connection with the Alarm Output .....40
■ Connection with Digital Disk Recorder WJ-HD500 Series .....40
■ Connection with Digital Disk Recorder WJ-HD200 Series .....43
■ Connection with Digital Disk Recorder WJ-HD100 Series MUX .....45
■ Connection with the Time-lapse VCR (Panasonic Models) MUX .....46
■ Connection with the Time-lapse VCR (Non-Panasonic Models) MUX .....47
■ Connection with the PC .....48
■ Time Adjustment with an External Equipment .....48
■ Master-slave Connection .....49

**WJ-SX150A SETUP PROCEDURES .....57**
FIRMWARE UPDATE .....58
■ Installation of SX150A Program Writer .....58
■ Firmware Update of SX150A Program Writer .....58
■ Error List .....60
SETUP PROCEDURES .....61
■ Setup Procedures .....61
■ Description of Setup Procedures .....61
WJ-SX150A SETUP MENU (OSD) .....63
■ Displaying SETUP MENU .....63
■ Programming SETUP MENU .....63
■ TIME & DATE .....64
■ D. S. T. (Daylight Saving Time) .....66
■ SEQUENCE SETUP .....66
■ ALARM SETUP .....67
■ CAMERA TITLE .....71
■ RECORDER .....71
■ SYSTEM SETUP .....72
■ OPERATOR REGISTRATION .....76
■ MULTIPLEXER MUX .....77
■ MUX CAMERA TITLE MUX .....78
WJ-SX150A ADMINISTRATOR Console .....79
■ Description of WJ-SX150A Administrator Console .....79
■ Installation/Uninstallation .....79
■ The Main Window .....80
■ Master-Slave .....81
■ Logical Camera Number .....82
■ Put a file to SX150A .....83
■ Get a Configuration Data from SX150A .....83
■ Tour Sequence .....84
■ Group Sequence .....85
■ Timer Event .....85
■ Camera Cleaning .....86
■ Daylight Saving Time/Summer Time .....87
■ Alarm Mode .....88
■ Alarm Event .....89
■ Alarm Port .....90
■ Operator Registration .....90
■ Level Table .....91
■ Monitor Selection .....92
■ Auto Login/Logout (Auto Log-in/Log-out) .....92
■ Time & Date .....93
■ Cable Compensation/VD2/DATA .....94
■ Camera Title .....94
■ Data Port .....96
■ Recorder .....97
■ Multiplexer Mode MUX .....98
■ Multiplexer Title MUX .....100
■ New .....101
■ Select Setup Data File .....101
■ Account Manager .....101
■ Communication Port .....102

**OPERATING PROCEDURES (TERMINAL MODE) .....103**
LOG-IN AND LOG-OUT .....104
■ Log-in .....104
■ Log-out .....105
■ Auto Log-in .....105
■ Auto Log-out .....105
MONITOR SELECTION AND CAMERA SELECTION ..106
■ Monitor Selection .....106
■ Priority Lock .....106
■ Camera Selection .....107
CAMERA CONTROL .....108
■ Lens Control .....108
■ Pan/Tilt Control .....108
■ Program Preset Position .....109
■ Call Preset Position .....109
CAMERA FUNCTION CONTROL .....110
■ Camera Setup .....110
■ Camera Function (Shortcut Function) .....110
■ Changing to Black and White Images .....111
■ Patrol Learn and Play .....111
■ Camera Panning Function .....112
CAMERA SITE ACCESSORIES CONTROL .....113
■ Receiver Control .....113
RUNNING SEQUENCE .....114
■ Tour Sequence .....114
■ Group Sequence .....114
MONITOR DISPLAY CONTROL .....115
■ On-screen Display (OSD) Control .....115
■ On-screen Display (OSD) Position Control .....115
■ System Status Table .....116
■ Alarm History Table .....117
■ Video Loss History Table .....117
ALARM CONTROL .....118
■ Alarm Mode .....118
■ Operation during an Alarm Mode .....118
■ Operation of an Alarm-related Camera (ACK) ....118
■ Resetting the Alarm Inputs .....119
■ Suspending the Alarm Inputs .....119
MULTIPLEXER OPERATIONS MUX .....120
■ Monitoring the Camera Picture ..... 120

**OPERATING PROCEDURES (PS·DATA).....123**
WHEN USING A PS·DATA SYSTEM CONTROLLER ...124
MONITOR CONTROL .....125
■ Monitor Selection .....125
■ Priority Lock .....125
RUNNING SEQUENCE .....126
■ Tour Sequence .....126
■ Group Sequence .....126
MONITOR DISPLAY CONTROL .....127
ALARM CONTROL .....128
■ Alarm Mode .....128
■ Operation during an Alarm Mode .....128
■ Resetting All the Alarm Inputs .....128
■ Suspending All the Alarm Inputs .....128

**EXPANDED FUNCTION .....129**
WJ-HD500 SERIES CONTROL (TERMINAL MODE) ...130
■ Displaying WJ-HD500 Series SETUP MENU .....130
■ Controlling Digital Disk Recorder WJ-HD500 Series .....131
WJ-HD200 SERIES CONTROL (TERMINAL MODE) ...135
■ Displaying WJ-HD200 Series SETUP MENU .....135
■ Controlling Digital Disk Recorder WJ-HD200 Series .....135
WJ-HD100 SERIES CONTROL MUX (TERMINAL MODE) .....137
■ Displaying WJ-HD100 Series SETUP MENU .....137
■ Controlling Digital Disk Recorder WJ-HD100 Series .....137
TIME-LAPSE VCR CONTROL MUX [PANASONIC MODELS] (TERMINAL MODE) .....139
■ Controlling the Time-lapse VCR .....139
TIME-LAPSE VCR CONTROL MUX [NON-PANASONIC MODELS] (TERMINAL MODE) ...140
■ Controlling the Time-lapse VCR .....140
WJ-HD500 SERIES CONTROL (PS·DATA) .....141
■ Controlling the Recorder with a PS·Data System Controller .....141
WJ-HD200 SERIES CONTROL (PS·DATA) .....143
■ Controlling the Recorder with a PS·Data System Controller .....143
WJ-HD100 SERIES CONTROL MUX (PS·DATA) .....144
■ Controlling the Recorder with a PS·Data System Controller .....144
TIME-LAPSE VCR CONTROL MUX [PANASONIC MODELS] (PS·DATA) .....145
■ Controlling the Time-lapse VCR with a PS·Data System Controller .....145
TIME-LAPSE VCR CONTROL MUX [NON-PANASONIC MODELS] (PS·DATA) .....146
■ Controlling the Time-lapse VCR with a PS·Data System Controller .....146
MONITOR DISPLAY WHEN A VIDEO LOSS OCCURS .....147
■ Video Loss Display .....147
■ Camera Switching Pulse Loss Display MUX .....147
TROUBLESHOOTING .....148

**APPENDIX .....151**
COMMUNICATION PROTOCOL .....152
■ Command Table .....153
■ Error Code List .....161
WORKSHEETS .....162
■ Instruction .....162
■ Checklist .....163
SPECIFICATIONS .....175
STANDARD ACCESSORIES .....175
OPTIONAL ACCESSORIES .....175

# PREFACE

Matrix Switcher WJ-SX150A is designed for a surveillance control system, which is composed of cameras, monitors and system controllers.
System controllers are used to operate the surveillance control system.
In combination with Digital Disk Recorder or a time-lapse VCR, a surveillance system can be established in a local area.
* To use WJ-HD100 Series or a time-lapse VCR, you need to install Multiplexer Board WJ-SXB151 inside the matrix switcher.

# FEATURES

- 16 cameras, 4 monitors and 4 system controllers connectable
- Master-slave connection supported: Up to 64 cameras connectable using 5 matrix switchers
- Multiple sequence modes: 32 tour sequences and 4 group sequences
- Control data and timing pulse (VD2) multiplexed over a coaxial cable
- Cable compensation selectable depending on the cable length
- Cameras (or images on the monitors) selectable with alarm (sensor)
- RS-485 cameras connectable
- Multiscreen display, electronic zooming, still picture, multiscreen sequence, and motion detector available with Multiplexer Board WJ-SXB151 **MUX**
- Disk Recorder controllable
- Connectable to external devices supporting PS·Data

# PRECAUTIONS

- **Refer all work related to the installation of this product to qualified service personnel or system installers.**

- **Do not block the ventilation opening or slots on the cover.**
  To prevent the appliance from overheating, place it at least 5 cm (2 inches) away from the wall.

- **Do not drop metallic parts through slots.**
  This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.

- **Do not attempt to disassemble the appliance.**
  To prevent electric shock, do not remove screws or covers.
  There are no user-serviceable parts inside. Contact qualified service personnel for maintenance.

- **Handle the appliance with care.**
  Do not strike or shake, as this may damage the appliance.

- **Do not expose the appliance to water or moisture. Do not try to operate it in wet areas.**
  Take immediate action if the appliance gets wet. Turn the power off and refer servicing to qualified service personnel. Moisture can damage the appliance and also cause electric shocks.

- **Do not use strong or abrasive detergents when cleaning the appliance body.**
  Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.

- **Do not operate the appliance beyond its specified temperature, humidity, or power source ratings.**
  Use the appliance at temperatures within –10 °C - +50 °C (14 °F - 122 °F) and humidity below 90 %.
  The input power source for this appliance is 120 V AC, 60 Hz.

- **We recommend that you note down your settings and save them. Power or battery failure may erase the settings you enter.**

# DOCUMENT CONVENTION

This operating instructions use the following convention when describing the use and operation of this unit.

Unit: Panasonic Matrix Switcher WJ-SX150A
Multiplexer board : Panasonic Multiplexer Board WJ-SXB151 MUX
System controller: Panasonic System Controller WV-CU360C or WV-CU360CJ
Recorder: Panasonic Digital Disk Recorder or a time-lapse VCR* (*Available only when the Multiplexer board is installed)
Receiver: Panasonic Indoor Receiver WV-RC100 or Outdoor Receiver WV-RC150
System: Surveillance control system
Master recorder: Recorder connected to the Master unit in a master-slave connection
Slave n* recorder: Recorder connected to Slave n unit in a master-slave connection

* n is a unit number.

**Notes:**

- Text with this appearance is a special instruction, rule, or side comment related to the topic.
- In these operating instructions, WV-CU360C is used for the illustrations and descriptions of the system controller.

**Symbol Used in The Operating Instructions**

These operating instructions use the icon shown below to describe the functions available when the Multiplexer board is installed in the unit.

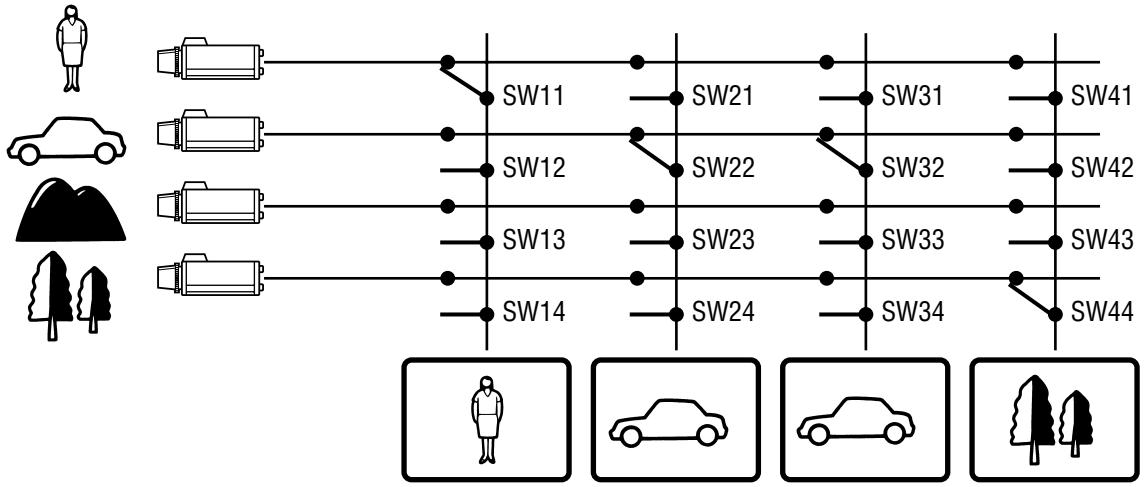
MUX : Functions available with the Multiplexer board

# FEATURES OF THE MATRIX SWITCHER SYSTEM

# MATRIX SWITCHER SYSTEM DESCRIPTIONS

Matrix Switcher System WJ-SX150A is a surveillance control system, which is composed of cameras, recorders, and this unit (the matrix switcher).
This system has various functions for surveillance control.
The following are the descriptions about the functions.

## ■ Crosspoint Switches




All matrix switchers, no matter how complicated and sophisticated they may be, depend on crosspoint switches to perform the basic operations of the switcher. The crosspoint switches from a rectangular array of rows and columns in which any row may be connected to any column.
In the figure shown above, the rows are connected to video cameras and the columns are connected to video monitors.
By closing a certain crosspoint switch we may connect any camera to any monitor.
In the example above, by closing switch SW12 the camera 2 is displayed on the monitor 1. Likewise, by closing SW24 camera 4 is displayed on the monitor 2.

## ■ Monitoring Mode

In the normal connection, this system can control up to 16 cameras, 4 monitors, and 4 system controllers. In the master-slave connection, the system can control up to 64 cameras.
There are two surveillance ways:
One is the spot mode that associates one camera with one monitor. The other is the sequence mode that sequentially displays the images through more than one camera.

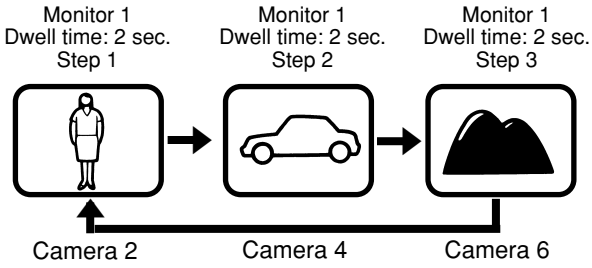
### ● Spot Mode

The specified camera images are continuously displayed on a given monitor.
When another camera input is accepted, the images are replaced by new ones.

## ● Sequence Mode

More than one camera's images are sequentially displayed for a fixed time.
The illustration shows an example of the sequential display of images through Camera 2, 4, and 6 on Monitor 1.
Before use, the parameters* of the sequence need to be configured and uploaded to the unit.

* Example: Camera selection, monitor selection, and dwell time (the time to display each image).




# ■ System Control

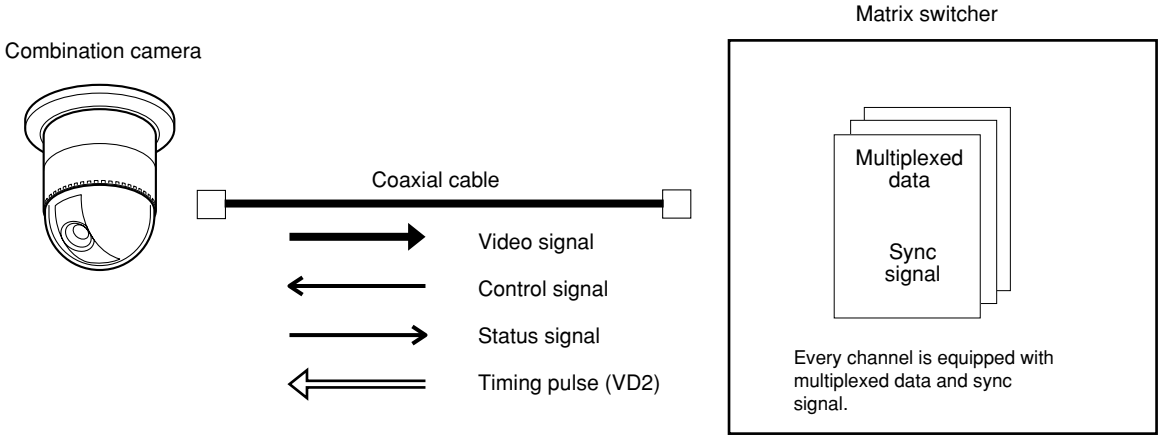
System controllers are used to control the equipment connected to this system.

## ● About System Controller

This matrix switcher system has four data ports: DATA 1 to 4. The ports DATA 1 to 3 supports the terminal mode, and the DATA 4 port supports both the terminal mode and Panasonic Security Data (PS·Data) Systems. These are the operation mode of the matrix switcher. When using the DATA 4 port, you can employ either of them. Refer to p. 14 for details of the terminal mode. Refer to p. 22 for notification about PS·Data System.

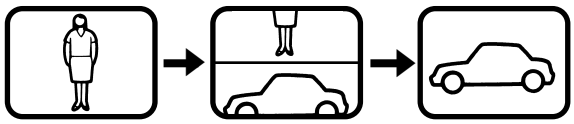
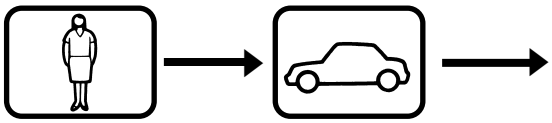
## ● Camera control

As the illustration, this unit sends the control data and VD2 timing pulse to the cameras.
On the contrary, the cameras send the video signal and state signal to the unit.
Control data is supplied via the coaxial cable from the unit, multiplexed with the camera image.
The unit is equipped with the circuit to multiplex or separate the video signal and control data with each channel.
These connections enable the control of the equipment from the system controller.
When using Panasonic RS-485 cameras, the unit can send the separated control data to them.
RS-485 cameras can be installed at longer distance from the matrix switcher than cameras that multiplex the control data.




Each signal functions as the illustrations in the next page.
VD2 provides the timing pulse of the same phase to prevent the unconformity during the switching of the image in a sequence mode.

| Signal type | Function |
|---|---|
| Control signal | Controls camera functions (pan/tilt, zooming, focusing, lens iris, preset position) and camera site accessories. |
| Status signal | Shows camera status. |
| Timing pulse (VD2) | This signal is supplied to the unit to each camera.<br>Each figure shows the picture status with or without the timing pulse. |

| | |
|---|---|
| VD2 OFF |  |
| VD2 ON |  |

## ■ Example of a SYSTEM with Basic Functions

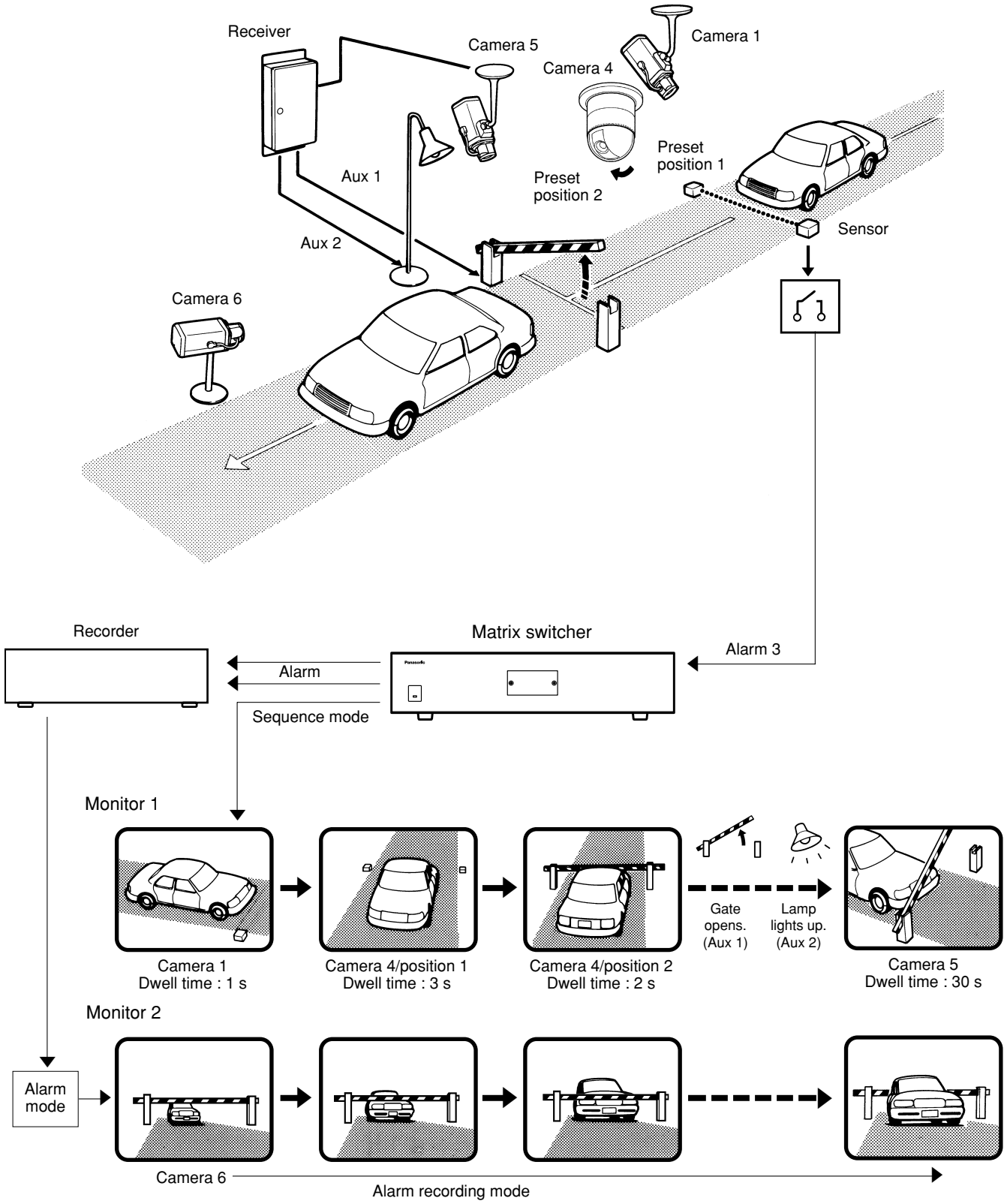
The illustration in the next page shows the surveillance system in a parking lot as an example.
Before the connections, the matrix switcher's system configuration* and the recorder's alarm recording setting are necessary.
Example: Operations of cameras and other connected equipment during an alarm input

1. The infrared sensor sends an alarm signal to the unit when detecting a car comes in.
2. The unit enters the sequence mode associated with Monitor 1.
   At the same time, the unit controls the digital disk recorder to change its recording mode into the alarm-recording mode.

   Monitor 1 is associated with the following sequence.

   Displaying Camera 1's image
   ↓
   Displaying Camera 4's image (Preset Position 1)
   ↓ Camera 4 moves from preset position 1 to 2 according to the sequence setting.
   Displaying Camera 4's image (Preset Position 2)
   ↓
   Controlling AUX 1 and 2 (The gate will open and the lamp will light up.)
   ↓
   Displaying Camera 5's image

Monitor 2 displays Camera 6's image consistently in the spot mode.
Operators will observe the parking lot by looking at these images on a monitor in a management office.



# TERMINAL MODE DESCRIPTIONS

In the terminal mode, each external device (such as a camera, monitor, system controller, or a recorder, etc.) has the name and number (Camera 1, etc.). When you control a device, you are to select the device number and execute the selection. For example, before controlling Camera 1, you will press the numeric button 1, and then press the CAM (SET) button. Each operator has a level and priority. When you try to control a device beyond the level and priority, the PROHIBITED or BUSY indicator will light up to inform you that you cannot control it.

## ■ Log-in/Log-out

Before starting the system operation, it is necessary to input an operator ID and a password from a system controller.
The system identifies the operator ID and password by comparing the registered data. If the ID and password are correct, the system will enter the operation mode.
This identification is called log-in. On the contrary, the termination of the system operation is called log-out.

Log-in/log-out has two ways: One is the manual log-in/log-out and the other is auto log-in/out.
Through the auto log-in, an operator can login the system without entering a password, after turning the power on.
Through the auto log-out, an operator can logout of the system when not operating the system for a fixed time.
The way of log-in/log-out and the time for auto log-out is configurable when setting up the system.
When configuring the auto log-in, it is necessary to assign an operator ID to each data port.

## ● Operator Registration

When operating the system, the operator registration is necessary.
Up to 16 operators can be registered and filed by their operator IDs.
They are registered in SETUP MENU and WJ-SX150A Administrator Console.

The following are the properties, which can prevent the operation conflict.

**Level Setting**
16 operators are classified in the level from 1 (the highest) to 3 (the lowest).
A higher-level operator can control more functions.

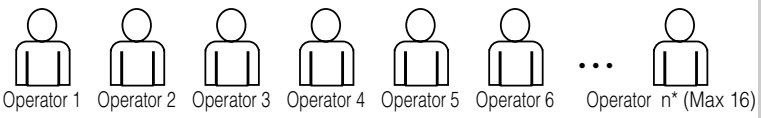
**Password Setting**
Up to 5 digit numbers can be registered as a password.
When an operator logs in, the system identifies the operator ID and password by comparing the registered data.
If they are correct, the operator can control the system.

**Priority Setting**
The system classifies the operators in priority from 1 to 16.
This setting includes the control coverage that is configured by level, and the priority in case of the conflict with the same-level operator.

**Operable Cameras and Sequences**
This setting assigns each operator the cameras and sequences operable by the level.

**Notes:**
- Each operator's ID, password, level and priority need to be configured in SETUP MENU and WJ-SX150A Administrator Console.
- Auto log-in/log-out is configurable in WJ-SX150A Administrator Console.
- The level and priority are assigned to each operator.
  Operators cannot control the system beyond the assignment.
  Even within the level and priority, a device controlled by a higher-level operator is not operable.
- Manual log-in/log-out or auto log-in/log-out is assignable to the system controllers Terminal – K1 to K4.

**• Description of Operator Registration**



| | Operator 1 | Operator 2 | Operator 3 | Operator 4 | Operator 5 | Operator 6 | ••• | Operator n* (Max 16) |
|---|---|---|---|---|---|---|---|---|
| **ID** | 150 | 1 | 100 | 101 | 102 | 103 | | – |
| **Password** | 150 | 12345 | 100 | 101 | 102 | 103 | | – |
| **Level** | 1 | 1 | 1 | 1 | 2 | 3 | | – |
| **Priority** | 1 | 2 | 3 | 4 | 5 | 6 | | – |
| **Camera Operation** | 1 | 1 | 1 | 1 | 1 | 1 | | – |

*n is a number.

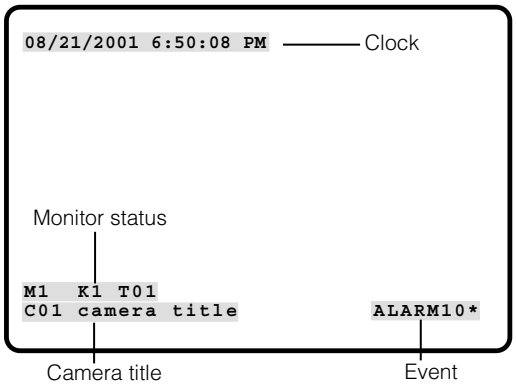
**Level Table**
SX150A Setup
Camera Setup
Program Preset Position
Camera Control
Camera Selection
Recorder Setup
Recorder Control
⋮

Items operable by the level are set to ON.

**Camera Operation Level**
1: This level can select and control the camera.
2: This level can only select the camera.
3: This level can neither select nor control the camera.

# ■ Monitor-related Functions

The following functions related to monitors are configurable.




## ● Monitor Selection

It is necessary to select a monitor when controlling the monitor-related functions, such as camera images or SETUP MENU.

## ● Information Displayed on the Monitors

The following information is displayed on monitors.

**Time and Date**

Time and date are displayed.
The date display is selectable from five patterns, and the time display is selectable from 24- or 12- hour system.

The date display pattern (Example: August 21, 2001)
- 21/08/2001
- 08/21/2001
- 21/Aug/2001
- 2001/08/21
- Aug/21/2001

**Camera Title**

The camera number (C01 to C99) and characters (up to 20) can be configured as a camera title.
The title is displayed in one line.

**Monitor Status**

The following status is displayed in one line.
- Mn (Monitor number)*
- Kn (Controller number)*
- Tnn (Monitor mode: the example shows the tour sequence)*
- Rn (Recorder number)*

* "n" is a number.

**Event**

The information related to system operation is displayed.
An alarm control, alarm suspension, and timer event are the example.
- ALARMnn (The alarm is operating.)
- ALARMnn ACK (The alarm has been acknowledged.)
- Tnn (Timer event: tour sequence number)
- LOSS CHnn (the video loss channel number)
- ALM SUSPENDED (The alarm is suspended.)
- CAM SW LOSS Rn* (Displayed when no camera switching pulse is supplied from Rn)
- SLAVE DOWN (Displayed when communication is not established between the Master and Slave units: for example, power/cable disconnection)

* "n" is a number.

**Notes:**

- When pressing the associated numeric button (1 to 5) while holding down the OSD button, information is turned on or off.
- When you select the LCN (logical camera number) not assigned in the system, "NOT ASSIGN" will appear beside the camera number.

## ● The Display Position

The display position of the information is adjustable with the joystick on the system controller.

## ● Priority Lock

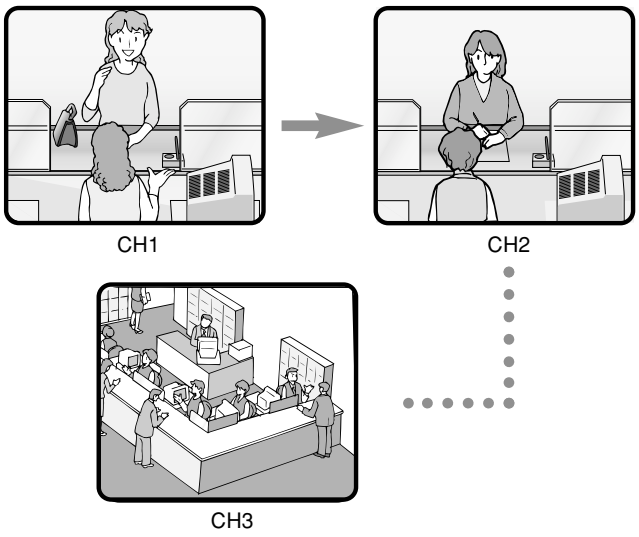
Priority lock is the function to prevent other operators' control of a monitor even after the system log-out.
While the priority lock is active, the monitor is operable by the locking operator and higher-priority operators.

## ● Sequence Mode

Camera images are displayed for a fixed time, and they are sequentially switched.
The change from a tour sequence into the spot mode is also possible.
Before use, the parameters of the sequence, such as a camera or monitor selection and dwell time need to be configured.
There are two sequences:

- Tour sequence
- Group sequence

**Tour Sequence**

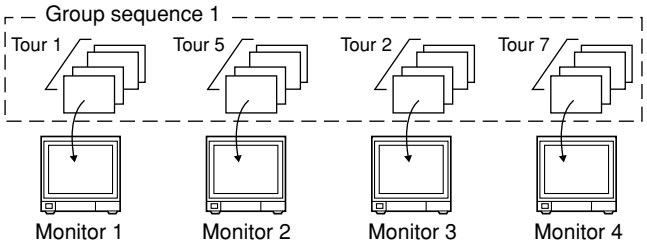



The images through Camera 1 to 99 are displayed on a given monitor in the desired sequence.
A tour sequence is consisted of 64 steps and up to 32 sequences are configurable.
Up to 30 seconds are selectable as each step's dwell time.
Each step can call the desired preset position of a camera to be displayed.

In each step, the desired preset position of a camera can be called and displayed.
Tour sequences are configurable in SETUP MENU and WJ-SX150A Administrator Console.

**Group Sequence**
Group sequence is a function to display up to 4 tour sequences in a group on up to 4 monitors. More than one sequences can be activated at one time by registering each tour sequence in a group.
Up to 4 tour sequences can be registered in a group.

**Notes:**
- Up to 4 group sequences are configurable in WJ-SX150A Administrator Console. The configuration in the matrix switcher's SETUP MENU is unavailable.
- The black picture is displayed when the following are included in a tour or group sequence: a camera channel without image or the image restricted to the operator.




### ● Multiscreen Display (4, 9, and 16 Screens)

With a recorder, more than one camera images can be displayed in 4, 9, and 16 multiscreen segments.
Refer to p. 129 EXPANDED FUNCTION for details.

## ■ Camera-related Functions

This system can operate the following camera-related functions.

**Notes:**
- When operating the motorized zoom lens, a combination camera is necessary.
- A motorized zoom lens needs to be installed on a camera. Confirm the system components.

### ● Camera Selection

The camera needs to be selected when controlling the camera-related functions such as a lens zoom, pan/tilt head, or spot image of a camera.

### ● Operating Zoom Lens

**Note:** Make sure that the lens selection switch (DC/VIDEO) is set to DC.

**Focus**
This setting adjusts the lens focus.
An auto-focus camera can automatically adjust the focus.

**Zoom**
This setting adjusts the lens zoom rate.

**Iris**
This setting adjusts the lens iris .

### ● Pan/Tilt Head Control

**Pan/Tilt**
Camera rotates on the pan/tilt heads.
There are two ways of control:
- Manual control by the joystick
  The joystick on the system controller can control a camera's pan/tilt head.
- Preset position control
  Entering preset position number can automatically rotate the camera to the desired position.
  It is necessary to register a camera's preset position numbers.
  The specified cameras support the registration during the pan/tilt head control.

**Notes:**
- Depending on the system components, the specified combination cameras are not operable.
- The speed varies depending on cameras.
- Some cameras' pan/tilt speeds cannot be controlled by the joystick.
  (Refer to the camera's operating instructions for details.)

**Auto Pan**
The camera automatically turns within the preset panning range.

**Sequence Mode**
The camera turns in the sequence of preset positions in numerical order.

**Sort Mode**
The camera turns in the sequence of preset positions counterclockwise from pan/tilt starting point.

**Patrol Learn**
The combination camera can learn and reproduce a routine of manual operation.
There are two ways of patrol learn:
- Learning during the operation
- Configuration in the camera's SETUP MENU

### ● Housing Control

The wiper or defroster of the camera housing can be controlled.

## ● External Equipment Control

When the camera is connected via a receiver, the external equipment connected to the receiver can be controlled.

## ● Controllable Camera-related Functions

The control is conducted while watching the camera images on the monitor.

- Changing to black and white pictures
- Camera function (Shortcut function)

**Note:** The specified cameras can control each function. Confirm the functions of the connected cameras and external devices.

**Changing to Black and White Pictures**

Color images are changeable to black and white images.
This function is intended for surveillance in a dark place such as an underground parking lot.

**Camera Function (Shortcut Function)**

The frequently-used functions are registered with the camera function button.
Pressing the button can activate the registered functions.
Refer to the camera's operating instructions for details on the registered functions.

## ● Camera Title

The titles for camera identification, which are displayed on the monitor, can be registered.
For example, if a camera setting place is registered as a camera title, operators can be informed where the image is recorded.
The title is displayed in one line.

**The available character numbers:**
20 (camera number and the characters)
**The available characters:**
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijkl
mnopqrstuvwxyz0123456789!"#$%&'()=+*_:;,. */?

**Notes:**

- Camera title is configurable in SETUP MENU and WJ-SX150A Administrator Console.
- User font characters can be made through WJ-SX150A Administrator Console.

## ● Camera Cleaning

When using a combination camera, noise can occur on the monitor after the long-term use.
In this case, the camera needs to be cleaned.
Camera cleaning is configurable to be conducted at the designated day and time.
The cleaning time is approximately 30 seconds per camera.

**Notes:**

- The images cannot be displayed while cleaning the camera. Use this function when continuous surveillance is not necessary, such as after-hours time.
- Cameras which are operating or being in the sequence mode are not cleaned.
- Camera selection will immediately stop the camera cleaning.
- If noise remains in the monitor even after the camera cleaning, there can be a malfunction. Stop using the camera and consult qualified service personnel.

# ■ Alarm-related Functions

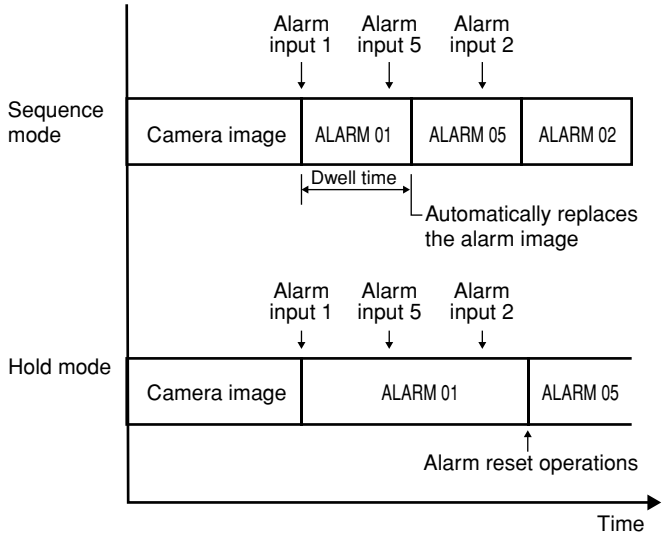
This unit is equipped with 16 alarm input connectors. When an alarm input signal is accepted via one of them, the alarm-associated spot image or tour sequence image is displayed on the monitor. With the alarm image on the monitor, the unit notifies you of the alarm information with "ALARM nn (nn is the alarm number)."
There are two ways to display the alarm-associated image:

- Sequence mode
- Hold mode

**Notes:**

- The camera (or tour sequence) and monitor need to be associated with the alarm number through the configuration in SETUP MENU (OSD) or WJ-SX150A Administrator Console.
- The mode is selectable and configurable in SETUP MENU (OSD) or WJ-SX150A Administrator Console.
- Even in the alarm mode, pressing the ACK button can control the camera's pan/tilt, zoom, focus and lens iris.
- When a recorder is connected to the matrix switcher, the alarm-related recording of the camera images is possible.

• Description about sequence mode and hold mode



## ● Sequence Mode

In the sequence mode, the unit displays the initial alarm image on the monitor until the dwell time ends, even when another alarm input is accepted. When the dwell time ends, the unit automatically replaces the alarm image with the next one.

## ● Hold Mode

In the hold mode, the unit continues to display the initial alarm image until the alarm reset. With the alarm image on the monitor, the unit notifies you that more than one alarm input is accepted with "*" next to "ALARM nn (nn is the alarm number)."

## ● Alarm Reset

The built-in timer automatically resets the alarm operation after the time specified in WJ-SX150A Administrator Console.
After the reset, the monitor displays and the sequence will return to the state before the alarm input.

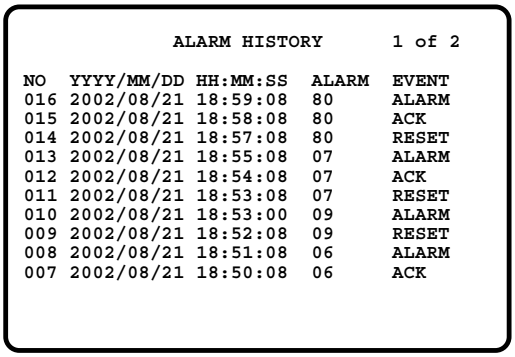
**Note:** When more than one alarm input has been accepted, only the newest can be reset.

## ● Alarm Suspension

Even when an alarm signal is input, the system will deactivate the alarm input and the alarm mode.
When the alarm suspension is active, "ALM SUSPENDED" will appear on the monitor.

## ● Alarm History Table

This table displays the alarms that have occurred in the past.
The alarm order, date, time, alarm number and event can be identified.
Up to 100 item can be reserved, and they are overwritten from the oldest, after more than 100 item have occurred.



ALARM HISTORY 1 of 2

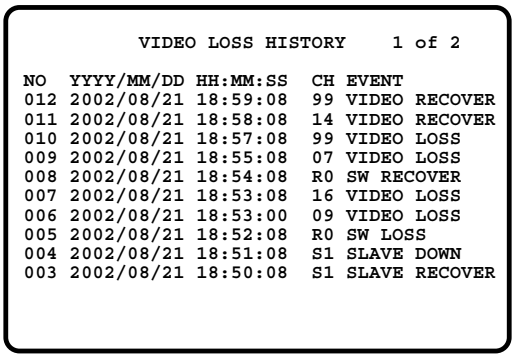
| NO | YYYY/MM/DD | HH:MM:SS | ALARM | EVENT |
|---|---|---|---|---|
| 016 | 2002/08/21 | 18:59:08 | 80 | ALARM |
| 015 | 2002/08/21 | 18:58:08 | 80 | ACK |
| 014 | 2002/08/21 | 18:57:08 | 80 | RESET |
| 013 | 2002/08/21 | 18:55:08 | 07 | ALARM |
| 012 | 2002/08/21 | 18:54:08 | 07 | ACK |
| 011 | 2002/08/21 | 18:53:08 | 07 | RESET |
| 010 | 2002/08/21 | 18:53:00 | 09 | ALARM |
| 009 | 2002/08/21 | 18:52:08 | 09 | RESET |
| 008 | 2002/08/21 | 18:51:08 | 06 | ALARM |
| 007 | 2002/08/21 | 18:50:08 | 06 | ACK |

**Notes:**
- When turning off the unit, all the history will be deleted.
- Alarm history can also be identified on the PC.

## ● Video Loss History Table

While the unit's power is ON, the video signal loss from a camera or a recorder can occur by cable disconnection, etc.

In this case, video loss history will be reserved in the system, and this table will display the history.
The loss order, date, time, camera number/recorder number and event can be identified.
Up to 100 item can be reserved, and they are overwritten from the oldest, after more than 100 item have occurred.



VIDEO LOSS HISTORY 1 of 2

| NO | YYYY/MM/DD | HH:MM:SS | CH | EVENT |
|---|---|---|---|---|
| 012 | 2002/08/21 | 18:59:08 | 99 | VIDEO RECOVER |
| 011 | 2002/08/21 | 18:58:08 | 14 | VIDEO RECOVER |
| 010 | 2002/08/21 | 18:57:08 | 99 | VIDEO LOSS |
| 009 | 2002/08/21 | 18:55:08 | 07 | VIDEO LOSS |
| 008 | 2002/08/21 | 18:54:08 | R0 | SW RECOVER |
| 007 | 2002/08/21 | 18:53:08 | 16 | VIDEO LOSS |
| 006 | 2002/08/21 | 18:53:00 | 09 | VIDEO LOSS |
| 005 | 2002/08/21 | 18:52:08 | R0 | SW LOSS |
| 004 | 2002/08/21 | 18:51:08 | S1 | SLAVE DOWN |
| 003 | 2002/08/21 | 18:50:08 | S1 | SLAVE RECOVER |

As well as the video loss history, the date of the loss and recovery, the camera number and the loss status are displayed on the table.

**Notes:**
- When turning off the unit, all the history will be deleted.
- Alarm history can also be identified on the PC.

# ■ Timer Event

The built-in timer can automatically start the sequence or spot mode on the specified days, which is configurable in WJ-SX150A Administrator Console.

**The available operations:**
Tour sequence and spot mode

**The available timer events:**
Up to 50

**Note:** When displaying SETUP MENU while timer event is operating, the operation will stop.

## ■ System Status Table

The current system status can be identified.
The continuous display becomes possible by the OSD setting.

```
                SYSTEM STATUS

 MON    CAM   MODE       KB     OPE      PRI
 1      01    T01        K1     12345    30
 2      99    SPOT       K2     2        2
 3      04    ALARM      K4     4        1
 4      R1    RECORDER   PC     30       1
```

**MON:** Monitor number
**CAM:** Camera number / Recorder number
**MODE:** Operation mode
**KB:** Controller name
**OPE:** Operator number
**PRI:** Priority

## ■ Setup Procedures

To use the unit, it is necessary to configure the system through the following setup procedures:

- OSD setup with an active monitor and system controller
  The basic parameters are configurable to operate the unit.
- WJ-SX150A Administrator Console with the PC
  The setup utility can configure all the functions of the unit.

Refer to p. 63 WJ-SX150A SETUP MENU (OSD) and p. 79 WJ-SX150A ADMINISTRATOR CONSOLE for details.

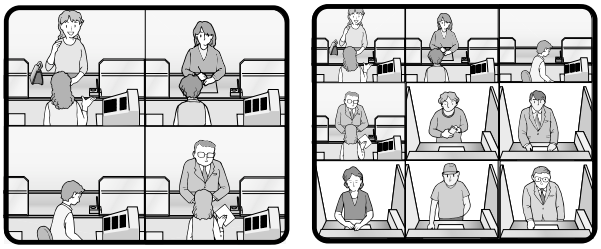
## ■ Extended Functions

If a recorder is connected to the matrix switcher, the following will be available.

### ● Recorder Connection

The operations are conducted with the buttons on the recorder, system controller or PC.

- The setup of the recording device
- The playback of the recorded images (the multiscreen display, still picture, etc.)



- The search for the recorded image
- Forward or backward search
- Forward of backward field advance
- Fast-forward
- Rewind
- Index

Refer to each device's operating instructions for details.

## ● Multiplexer Board Function MUX

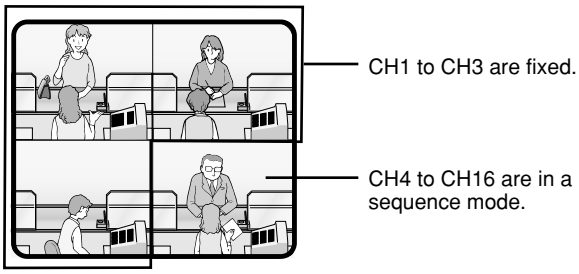
To use WJ-HD 100 Series or a time-lapse VCR as a recorder, you need to install a Multiplexer board inside the matrix switcher. With the Multiplexer board installation, the following will be available.

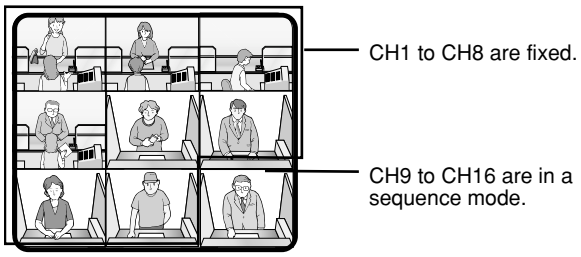
### • Multiscreen display

More than one camera images can be displayed in 4, 9, and 16 multiscreens.
The sequence output is also available.
As the sequence output, the following are configurable in WJ-SX150A Administrator Console.

- The images are switched within 4 multiscreens. (QUAD)
- The images are displayed in 4 multiscreens, and the images of Camera 4 to 16 are displayed in the sequence mode. The images of Camera 1 to 3 are fixed. (3+1→2S)

- The images are displayed in 9 multiscreens, and the images of Camera 9 to 16 are displayed in the sequence mode. The images of Camera 1 to 8 are fixed. (8+1→2S)




**Notes:**

- The black image will be displayed for a camera channel which is not connected to the camera.
- Even during the multiscreen display, pressing the camera number can display the camera's image in the spot mode.

**• Still display**

The desired image can be displayed in a still picture.
Live images can be displayed in multiscreen display.
Playback images can be displayed in spot/multiscreen display.
"STILL" will appear on the active monitor.

### • Zoom

The desired image on the monitor can be zoomed up to two fold.

**Note:** This function is available only when a playback image is displayed in a spot picture.

### • Alarm priority mode

When an alarm is activated and the alarm signal is input to the unit, the camera channel with the alarm input will be recordable according to the configuration in SETUP MENU and WJ-SX150A Administrator Console.
The following are configurable as the recording mode when the alarm is activated:

- The camera channel with the alarm input is given recording priority. (ALM-PRI)
- Only the camera channel with the alarm input is recorded. (ALM-ONLY)
- Up to 4 camera channels are assigned to an alarm input to record the images by priority. (GROUP)

**Notes:**

- The recording mode needs to be configured in SETUP MENU and WJ-SX150A Administrator Console in advance.
- Detailed settings of GROUP is configurable only in WJ-SX150A Administrator Console.

### • Motion detector

When the multiplexer board detects motions in the image, the Multiplexer board sends an alarm signal to the unit.
Then, the unit will send the alarm signal to the connected devices.
The areas can be divided in four segments, and the detection is conducted in each segment.
For example, this function can be applied to a time-lapse recording, which responds to the break-in at night.

**Notes:**

- The motion-detection area needs to be configured in SETUP MENU in advance.
- The range of the motion detector is also configurable in the WJ-SX150A Administrator Console.

### • When connected with Digital Disk Recorder WJ-HD100 Series/time-lapse VCR

The multiplexed recording and playback of all the camera images connected to the unit are possible.
Each camera's image and camera ID are recorded.
The camera ID can search and play back the desired camera's image.
The digital disk recorder (WJ-HD100 Series) connected to the unit and time-lapse VCR have the following functions.
The operations are conducted with their buttons or the system controller or the PC.

- The setup of the recording device (HD100 only)
- The start of the playback
- The stop of the playback
- The playback of the recorded images (the multiscreen display, still picture, zoom spot picture)
- The search of the recorded image (the search by the recorded time and date) (HD100 only)
- Forward or backward search
- Forward or backward field advance
- Fast-forward
- Rewind
- Index (HD100 only)

Refer to each device's operating instructions for details.

**Notes:**

- When recording on the WJ-HD100 Series or time-lapse VCR, an optional Multiplexer board needs to be installed in this unit.
- Only Panasonic time-lapse VCRs supporting RS232C are operable.

## ● Master-slave Connection

When applying this connection, up to 5 matrix switchers (units) and 64 cameras can be connected in a surveillance control system. One of the units is designated as Master and others as Slave 1 to 4. Each unit has camera channels (CAM 1 to 16). Cameras have logical camera numbers (LCN 1 to 99), which are uniquely assigned for camera control and monitor display. (Refer to pp. 49 to 52 for illustrations.)

# NOTIFICATION ABOUT PS·DATA CONTROLLER OPERATION

In the factory default setting, you can control the unit, if you connect a PS·Data system controller to the DATA 4 port. For example, if you connect a PS·Data unit supporting network connections (refer to p. 42), remote-control of the unit and the PS·Data units will be available with a system controller or PC.

When you use a PS·Data system controller, take notice the following:

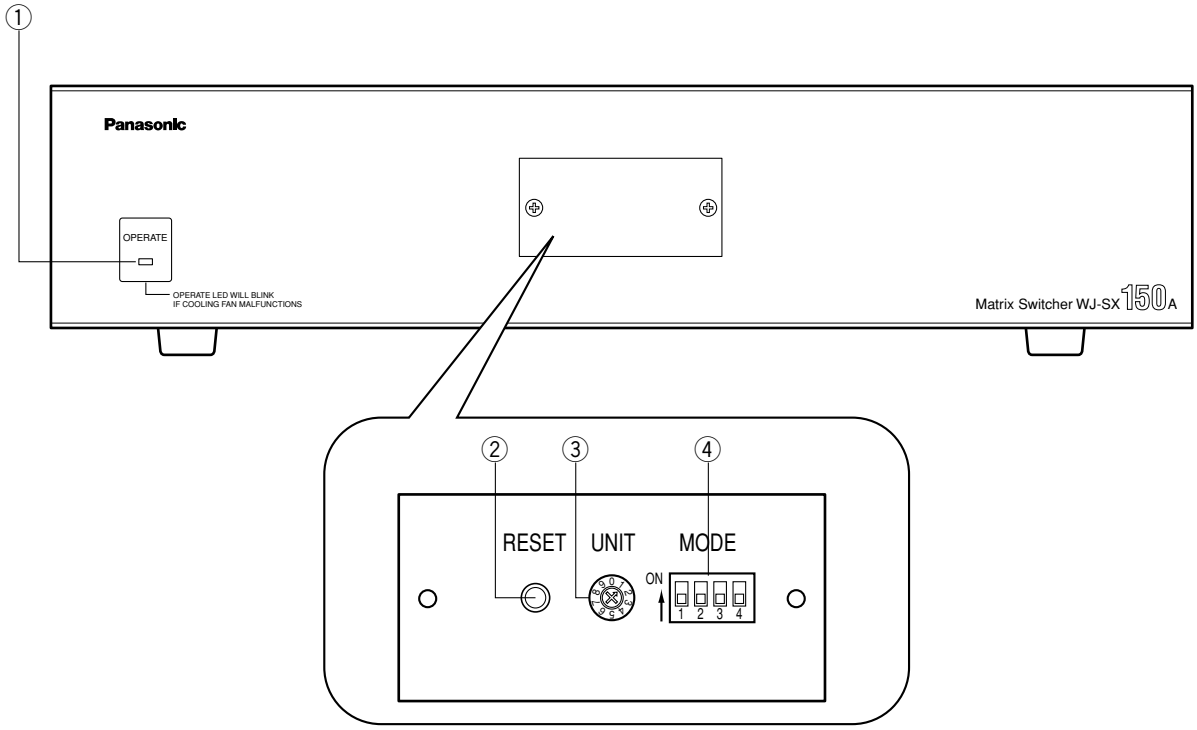
- The administer authorization and log-in/log-out procedure differs from the unit. They are conformed to the system controller. Refer to the system controller's operating instructions.
- Use the PS·Data template supplied with the system controller, as the operating procedures differ from those of the terminal mode. (Refer to pp. 123 to 128.)
- When connecting a recorder to the unit, you may have to configure the settings of the unit and recorder, depending on the recorder's available functions and connections. (Refer to pp. 40 to 55.)

# DETAILED PRODUCT DESCRIPTION

# MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

## ■ WJ-SX150A Matrix Switcher

### ● Front View




① **Operation indicator (OPERATE)**
Lights up when the power of the unit is turned on.

**Note:** The indicator will blink to indicate rising temperature in the matrix switcher.
When the indicator blinks, turn the power off and refer servicing to qualified service personnel.

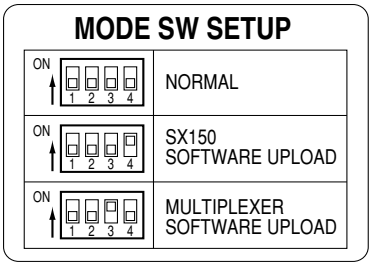
② **Reset button (RESET)**
Resets and restarts the unit.

**Note:** The system configuration is not reset.

③ **Unit number selector (UNIT)**
Normally, set this selector to "0".
When applying the master-slave connection, set this selector to one of the following unit numbers. (Refer to pp. 49 to 55 for details on the master-slave connection.)

| Master/Slave | Unit number |
|---|---|
| Master | 0 |
| Slave 1 | 1 |
| Slave 2 | 2 |
| Slave 3 | 3 |
| Slave 4 | 4 |

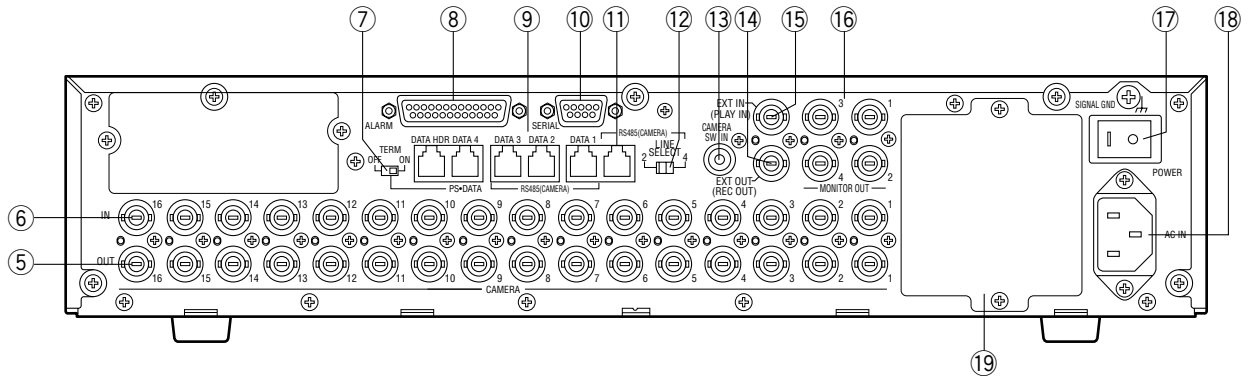
④ **Mode selector (MODE)**
Selects the unit's operation mode.
Normally, set all switches to OFF (NORMAL mode) as shown in the figure.




**SX150A SOFTWARE UPLOAD:**
Set the switches to this position when you update the firmware of the unit. (Refer to the operating instructions of the Multiplexer board.)

**MULTIPLEXER SOFTWARE UPLOAD:**
This mode is reserved for future use.

## ● Rear View




⑤ **Camera Output connectors (CAMERA OUT 1–16)**
The video signal connected to the CAMERA IN connector is supplied at these connectors.
When the power of the matrix switcher is turned off, no signal is supplied at these connectors.

⑥ **Camera Input connectors (CAMERA IN 1-16)**
- Connect to cameras or camera site accessories.
  These connectors accept either a composite color or B/W video signal from a camera.
  In addition, the VD2 signal to synchronize the vertical timing of the cameras, and data to control camera site devices are multiplexed at these connectors.
- When applying the master-slave connection, the functions of connectors will differ. (Refer to p. 53 for details.)

⑦ **Termination selector (TERM ON/OFF)**
When you connect a PS·Data system controller to the DATA 4 port, this selector turns the unit's termination switch to ON/OFF.
The factory default setting is ON.

**Note:** When you connect a terminal-mode system controller to the DATA 4 port, set this selector to ON.

⑧ **Alarm port (ALARM)**
Connects to alarm sensors.
Accepts the alarm input from the associated alarm sensors.

⑨ **Data ports (DATA 1/2/3/4/DATA HDR)**
- DATA 1 to 4 connect to the system controller.
  DATA 1 to 3 can connect to RS-485 cameras with the configuration in WJ-SX150A Administrator Console. (Refer to p. 96.) DATA 4 can connect to the system controller via the PS·Data protocol.
- DATA HDR connects to a recorder.
- When applying the master-slave connection, the functions of ports will differ. (Refer to p. 53 for details.)

⑩ **Serial port (SERIAL)**
Connects to a PC for the system configuration through WJ-SX150A Administrator Console.

⑪ **RS-485 Camera port**
- Connects to an RS-485 camera.
  Daisy chain connection is also available.
- When the unit is used as Master in the master-slave connection, terminal-mode system controllers can be connected.

**Note:** To connect terminal-mode controllers, the setting in SETUP MENU and WJ-SX150A Administrator Console is required. (Refer to pp. 61 to 102 for details.)

⑫ **Line selector (LINE SELECT 2/4)**
Lets you select either full duplex (4 lines) or half duplex (2 lines) for RS-485 cameras.

⑬ **Camera Switching Input connector (CAMERA SW IN)** MUX
The camera switching pulse from the time lapse VCR is supplied to this connector.
The camera switching interval (Sequential Dwell Time) can be synchronized with the time lapse mode set in the associated time lapse VCR.

⑭ **External Output connector (EXT OUT/REC OUT)** MUX
The recording signal for the recorder is provided via this connector.

⑮ **External Input connector (EXT IN/PLAY IN)**
A playback or live images from the recorder are supplied to this connector.

⑯ **Monitor Output connectors (MONITOR OUT 1/2/3/4)**
- Connect to monitors.
  The video output signals are supplied to the monitors at these connectors.
- When applying the master-slave connection, the functions of connectors will differ. (Refer to p. 53 for details.)

⑰ **Power switch (POWER)**
Turns the power of the matrix switcher on and off.

⑱ **AC Inlet socket (AC IN)**
To use the unit, plug the power cord (supplied as a standard accessory) into this socket and connect it to an AC outlet.

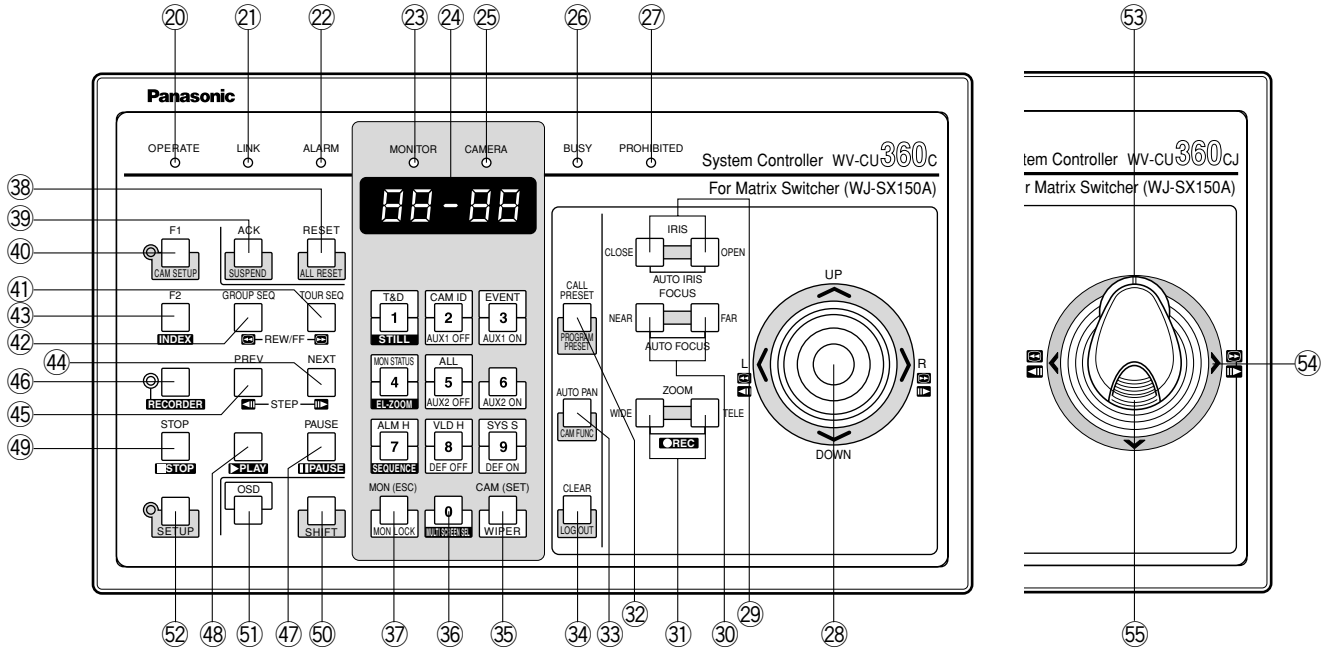
⑲ **Blank panel**
When the Multiplexer board installed in the unit, remove this panel and then attach the cooling fan inside the unit. (Refer to the Multiplexer board's operating instructions.)
**Note:** Fan unit needs replacement after around 30 000 hours of operation.

# ■ WV-CU360C/CU360CJ System Controller (TERMINAL MODE)

A template, on which “For Matrix Switcher (WJ-SX150A)” is written, is provided with a system controller. When using the template, place it on the surface of the controller.
In these operating instructions, this template's illustrations are used for descriptions.

### ● Front View (WV-CU360C)

### ● Front View (WV-CU360CJ)




⑳ **Operation indicator (OPERATE)**
Lights up when the controller's power is turned on.

㉑ **Link indicator (LINK)**
Lights up when communication is established with the matrix switcher.

㉒ **Alarm indicator (ALARM)**
Lights up when an alarm condition exists.

㉓ **Monitor indicator (MONITOR)**
Lights up when the monitor number appears on the LED display.

㉔ **LED Display**
Displays the monitor number, camera number, numeric entry and error status, etc.

㉕ **Camera indicator (CAMERA)**
Lights up when the camera number appears on the LED display.

㉖ **Busy indicator (BUSY)**
Lights up when the higher-priority operator selects the camera or monitor you are currently operating.
Operations from the system controller are disabled until this indicator goes off.

㉗ **Prohibited indicator (PROHIBITED)**
Blinks when an operator attempts to control a monitor (or camera) that is already used by a higher-priority operator or the operator has done the prohibited operation.

㉘ **Joystick**
Use this joystick to manually operate cameras, camera site accessories and a recorder, or to move the cursor in SETUP MENU on the active monitor screen.
**UP:** Up
**DOWN:** Down
**L:** Left, rewind*, backward field advance*
**R:** Right, fast-forward*, forward field advance*
*Available after pressing the RECORDER button while connecting to a recorder.

㉙ **Iris buttons (IRIS CLOSE/OPEN)**
Close or open the lens iris of cameras equipped with the specified lens.
Press the CLOSE and OPEN buttons simultaneously. The lens iris is reset to the factory default setting.

㉚ **Focus buttons (FOCUS NEAR/FAR)**

Adjust the lens focus of cameras equipped with the specified lens.

Press the NEAR and FAR buttons simultaneously. The lens focus is adjusted automatically, if the specified auto focus camera is equipped.

㉛ **Zoom buttons (ZOOM WIDE/TELE)**

Press these buttons to zoom the lenses equipped with the specified cameras.

Press the WIDE and TELE buttons simultaneously during the recorder mode. The recording is started.

㉜ **Call Preset button (CALL PRESET/PROGRAM PRESET)**

To call the selected camera's preset position, press this button in combination with the numeric buttons. (The specified cameras support this function.)

To program a preset position, press the corresponding numeric button(s), and then press this button while holding down the SHIFT button.

㉝ **Auto Pan button (AUTO PAN/CAM FUNC)**

Activates the auto panning function of cameras equipped with this feature.

To execute camera functions, press this button in combination with the numeric buttons.(The specified cameras support this function.)

㉞ **Clear button (CLEAR/LOG OUT)**

Use this button to clear numeric input on the LED display, or exit from the ALARM HISTORY table (p. 117), the VIDEO LOSS HISTORY table (p. 117), or the SYSTEM STATUS table (p. 116).

To logout of the system, press this button while holding down the SHIFT button.

㉟ **Camera (Set) button [CAM (SET)/WIPER]**

**CAM:** To select a camera, press the corresponding numeric button, followed by this button.

**SET:** To enter numeric input, such as operator ID and password, press this button in combination with the numeric buttons.

Also use this button to execute the currently highlighted selection and go into a submenu of SETUP MENU.

**WIPER:** To turn on the housing wiper of the camera, press this button while holding down the SHIFT button.

㊱ **Numeric buttons**

Press these buttons to enter numbers into the system such as the camera and monitor number, sequence number, preset position, etc.

- In combination with the OSD button, parameter selection in OSD (On-screen Display) operation of the monitor status or research in a history table become available.
- In combination with the SHIFT button, AUX and Defroster are available.
- In the recorder mode, electronic zooming and multi-screen sequence, etc. are available when pressed in combination with the SHIFT button.

㊲ **Monitor (Escape) button [MON (ESC)/MON LOCK]**

**MON:** Press this button to select a monitor.

To select a monitor, press the corresponding numeric buttons, followed by the MON (ESC) button.

**ESC:** Press this button to escape from the currently highlighted selection and return to the previous page of SETUP MENU.

**MON LOCK:** To prevent other operators from controlling the monitor, press this button while holding down the SHIFT button. To release the lock, press this button while holding down the SHIFT button again. (Refer to p. 106.)

㊳ **Alarm Reset button (RESET/ALL RESET)**

**RESET:** To reset an alarm activated in the currently active monitor, press this RESET button.

**ALL RESET:** To cancel all activated alarms at a time, press this button while holding down the SHIFT button.

㊴ **Alarm Acknowledge button (ACK/SUSPEND)**

**ACK:** Acknowledges an activated alarm.

To select the alarm monitor, press the ALARM button.

To select the desired alarm action number, press the numeric buttons, then press this ACK button. "ACK" will appear on the monitor.

To reset the alarm, press the RESET button after acknowledging the alarm. "ACK" will go out.

**SUSPEND:** To suspend an activated alarm, press this button while holding down the SHIFT button. "ALM SUSPENDED" will appear on the monitor. To cancel the suspension, press this button while holding down the SHIFT button again.

㊵ **Function 1 button (F1/CAM SETUP)**

Press this button while holding down the SHIFT button to open the camera's SETUP MENU on the active monitor.

The function as the F1 button is reserved for future use.

㊶ **Tour Sequence button (TOUR SEQ)**

Press this button, in combination with the numeric buttons, to run a tour sequence on the active monitor.

㊷ **Group Sequence button (GROUP SEQ)**

Press this button to select a group sequence.

To select a group, press the corresponding numeric buttons, followed by the GROUP SEQ button.

㊸ **Function 2 button (F2/INDEX)**

Displays date and time entry form during the recorder mode.

㊹ **Next button (NEXT)**

Moves a tour sequence one step forward from the step previously paused on the active monitor.

Also selects a camera. If the active monitor is in the spot mode, press NEXT while holding down the CAM (SET) button, to replace the currently selected camera with the next higher-numbered camera.

During the recorder mode, this button moves the playback image one step forward.

㊺ **Previous button (PREV)**

Moves a tour sequence one step backward from the step previously paused on the active monitor.

Also selects a camera. If the active monitor is in spot mode, press PREV while holding down the CAM (SET) button, to replace the currently selected camera with the next lower-numbered camera.

During the recorder mode, this button moves the playback image one step forward.

㊻ **Recorder button (RECORDER)**

To enter the recorder mode, press this button. (Refer to p. 131.)

**Note:** Only one operator can enter the recorder mode at one time.

㊼ **Pause button (PAUSE)**

Pauses a tour sequence, and the playback of the recorded images* that is being run on the active monitor.

Also restarts the sequence from the next step forward, or the playback of the recorded images*.

㊽ **Play button (PLAY)**

Starts the playback of the recorded images*.

㊾ **Stop button (STOP)**

Ends a tour sequence, or stops the playback of the recorded images* that is being run on the active monitor.

㊿ **Shift button (SHIFT)**

To activate the alternate function of each button, press this button, in combination with buttons associated with special functions.

(51) **On-screen Display button (OSD)**

In combination with the numeric buttons, this button toggles the currently selected display items on the active monitor.

**1:** Clock display (T&D)
**2:** Camera title display (CAM ID)
**3:** Event display (EVENT)
**4:** Monitor status display (MON STATUS)
**5:** All displays (ALL)
**7:** ALARM HISTORY table (ALM H)
**8:** VIDEO LOSS STATUS table (VLD H)
**9:** SYSTEM STATUS table (SYS S)

(52) **Setup button (SETUP)**

To display the unit's SETUP MENU, press this button while holding down the SHIFT button.

* The playback of the recorded images is possible when a recorder is connected.

(53) **Zoom wheel controller**

This control is used for zooming cameras equipped with the specific lens. Moving the control to the right will zoom in the image. Moving the control to the left will zoom out the image.

(54) **Joystick**

Use this joystick to manually operate cameras, camera site accessories and a recorder, or to move the cursor in SETUP MENU on the active monitor screen.

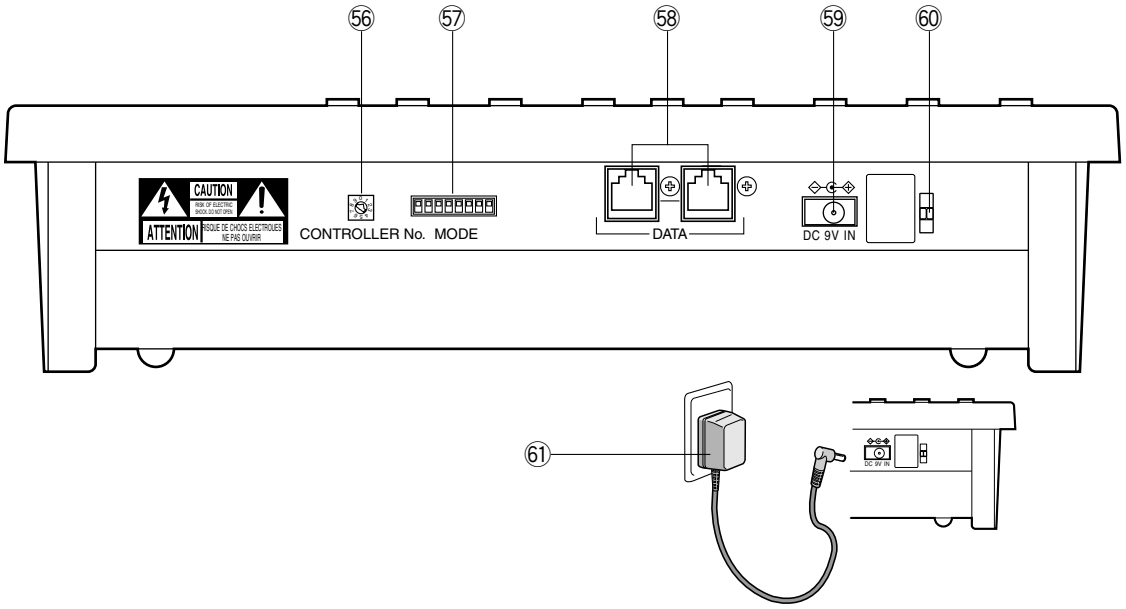
**∧:** Up
**∨:** Down
**>:** Left, rewind*, backward field advance*
**<:** Right, fast-forward*, forward field advance*

*Available after pressing the RECORDER button while connecting to a recorder.

(55) **Top button**

Pressing this button will automatically set the lens focus of a specified camera.

## ● Rear View

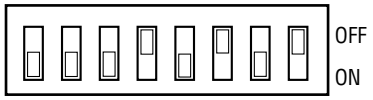



**56 Controller Number switch (CONTROLLER No.)**
Selects a number for the system controller for identification in a system. Normally, set the switch to number 1.




CONTROLLER No.

**57 Mode Selection switches (MODE)**
The operation mode of the system controller is selected with these switches.
When you use a terminal-mode system controller, set the switches to the positions shown in the figure.




MODE

**Note:** When you use a PS·Data system controller, refer to the system controller's operating instructions.

**58 Data ports (DATA)**
Exchange the control data with the matrix switcher via RS-485 cable (supplied with the system controller).

**59 DC 9V Input jack (DC 9V IN)**
Use this jack to plug the AC adapter supplied with the system controller.

**60 Clamp**
Fastens the supplied AC adapter's power cord.

**61 AC adapter**
**Caution:** Use only the supplied AC adapter to feed 9 V DC to the system controller.

**Note:** Disconnect the plug from the controller before setting the controller number switch or mode selection switch, and reconnect it when finished. The new settings will take effect when the power is turned on.

# INSTALLATIONS AND SYSTEM CONNECTIONS

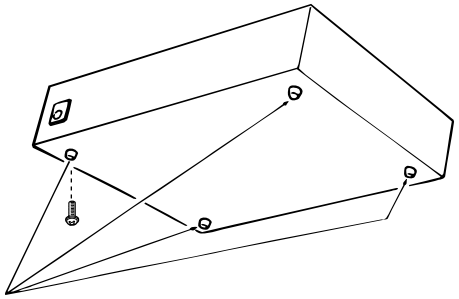
## WARNING

**The installations described in the figures should be made by qualified service personnel or system installers**.

## ■ Mounting into the Rack

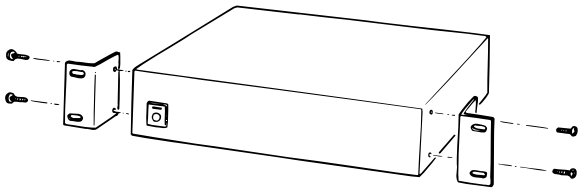
The matrix switcher can be mounted into the rack as described.

1. Remove the four rubber feet by unwinding the four screws on the bottom of the matrix switcher.

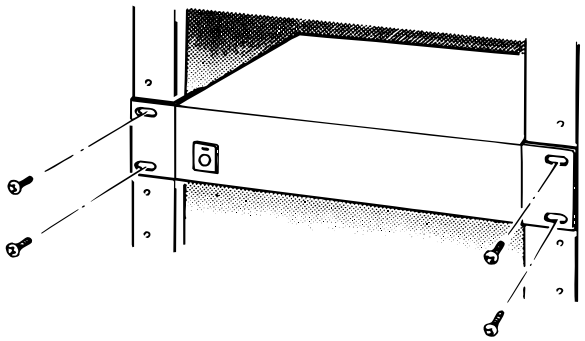


Remove 4 rubber feet

2. Place the rack mounting brackets on both sides of the matrix switcher and tighten with the four supplied screws (M4 X10).



3. Install the matrix switcher in the rack with the rack mounting brackets secured with four screws (procured locally).



**Notes:**

- An optional cooling fan attached inside the unit is subject to wear. It needs to be replaced periodically.
  Keep the temperature in the rack below 45 °C (113 °F) at any time.
- If the rack is subject to vibration, secure the rear of the appliance to the rack by using additional mounting brackets (procured locally).

## ■ Installing the Multiplexer Board

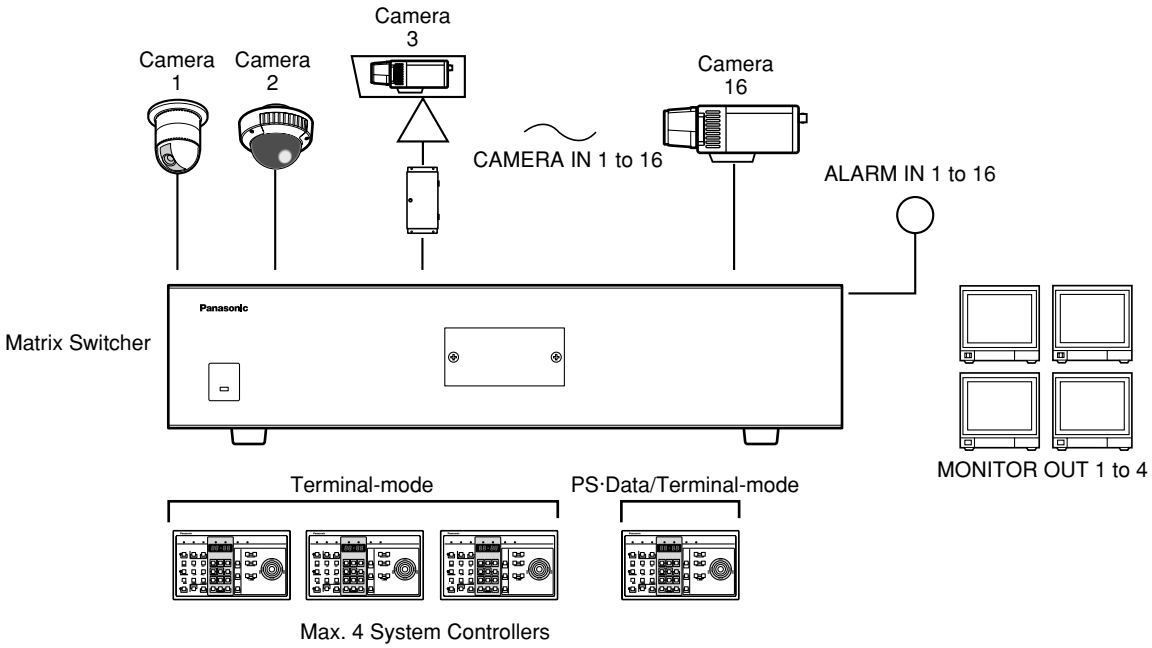
MUX

To use WJ-HD100 Series or a time-lapse VCR as a recorder, you need to install a Multiplexer board inside the matrix switcher. Refer to the Multiplexer board's operating instructions for how to install.

# SYSTEM CONNECTION EXAMPLES

## ■ Basic System Connection

This is an example of basic system connection.

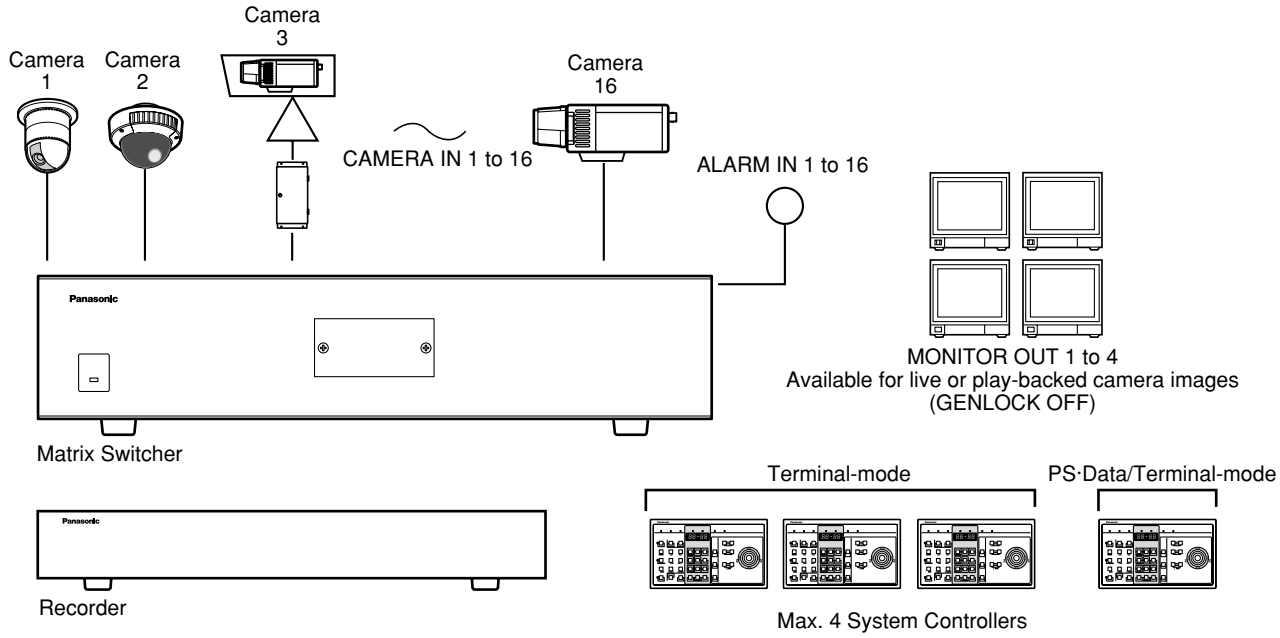



**Note:** Before connecting a terminal-mode system controller to the DATA 4 port, configure the system through SETUP MENU or WJ-SX150A Administrator Console.

## ■ System Expansion Connection

### ● Connection with Digital Disk Recorder WJ-HD500 Series or WJ-HD200 Series

When connecting the camera output connectors to Digital Disk Recorder WJ-HD500 or WJ-HD200 Series, the digital disk recorder can record all the camera channels. More than one camera images can be displayed in multiscreen segments on the desired monitor.

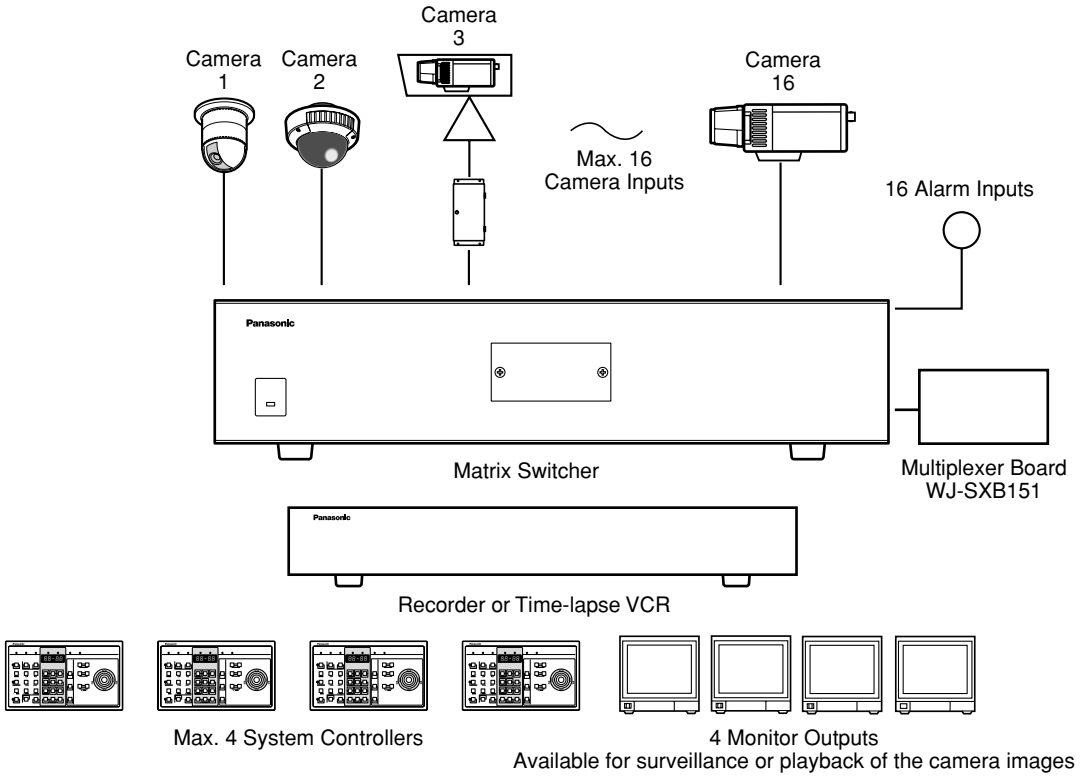


**Notes:**

- Before connecting a terminal-mode system controller to the DATA 4 port, configure the system through SETUP MENU or WJ-SX150A Administrator Console.
- If an optional network board is installed inside the recorder and you are to control it from LAN (local area network) or the Internet, refer to a service manual procurable in your area.

## ● Connection with Digital Disk Recorder WJ-HD100 Series or Time-lapse VCR MUX

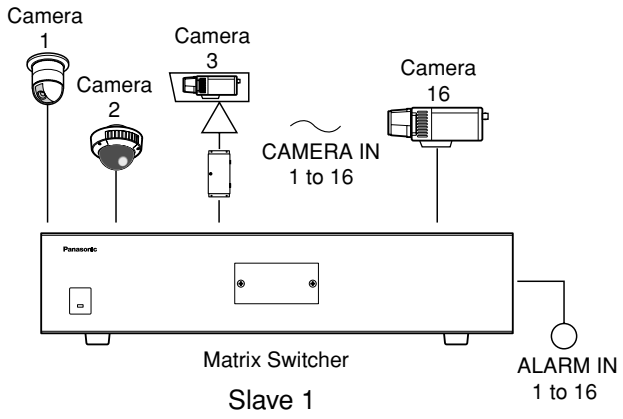
- With the Multiplexer board, the recorded images of Camera 1 to 16 can be multiplexed to Digital Disk Recorder, WJ-HD100 Series or a time-lapse VCR.

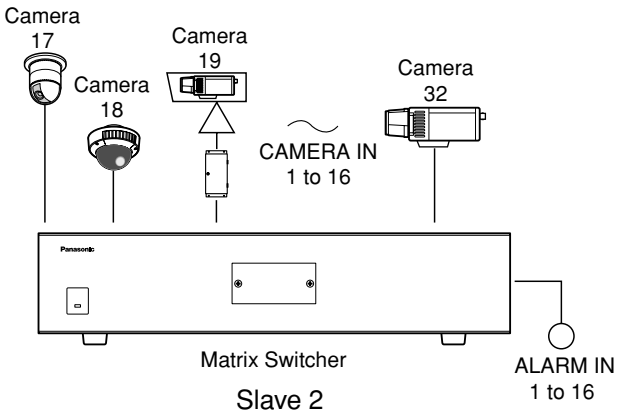


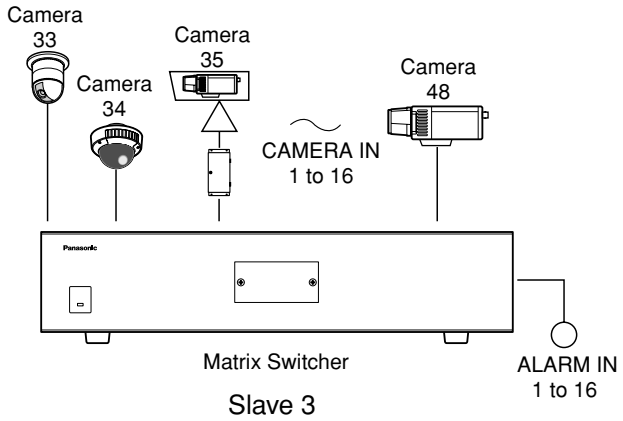

To use WJ-HD100 Series or a time-lapse VCR as a recorder, you need to install a Multiplexer board inside the matrix switcher.

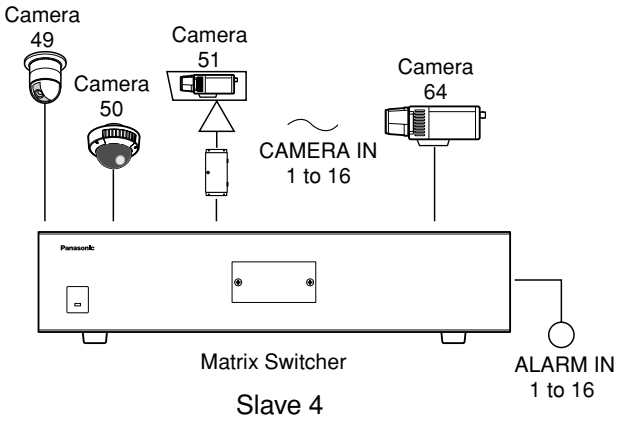
## ● Master-slave Connection

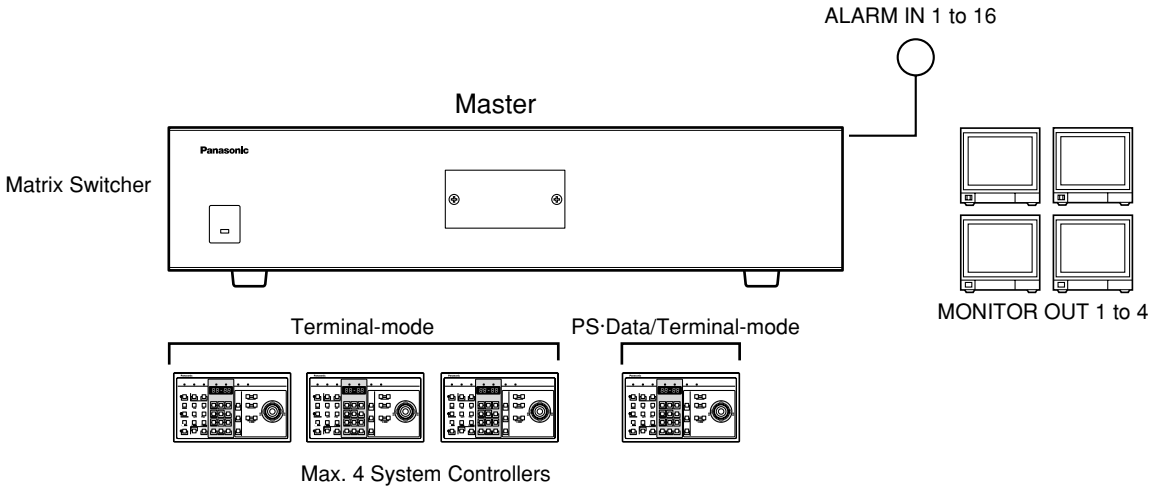
When applying this connection, up to 5 matrix switchers and 64 cameras can be connected in a surveillance control system. One of the matrix switchers is designated as Master and the others are designated as Slave.



## ■ Connection with the Camera Sites

Connect the data-multiplex type cameras (or camera site equipment) to the CAMERA IN connectors 1 to 16 on the matrix switcher's rear panel.

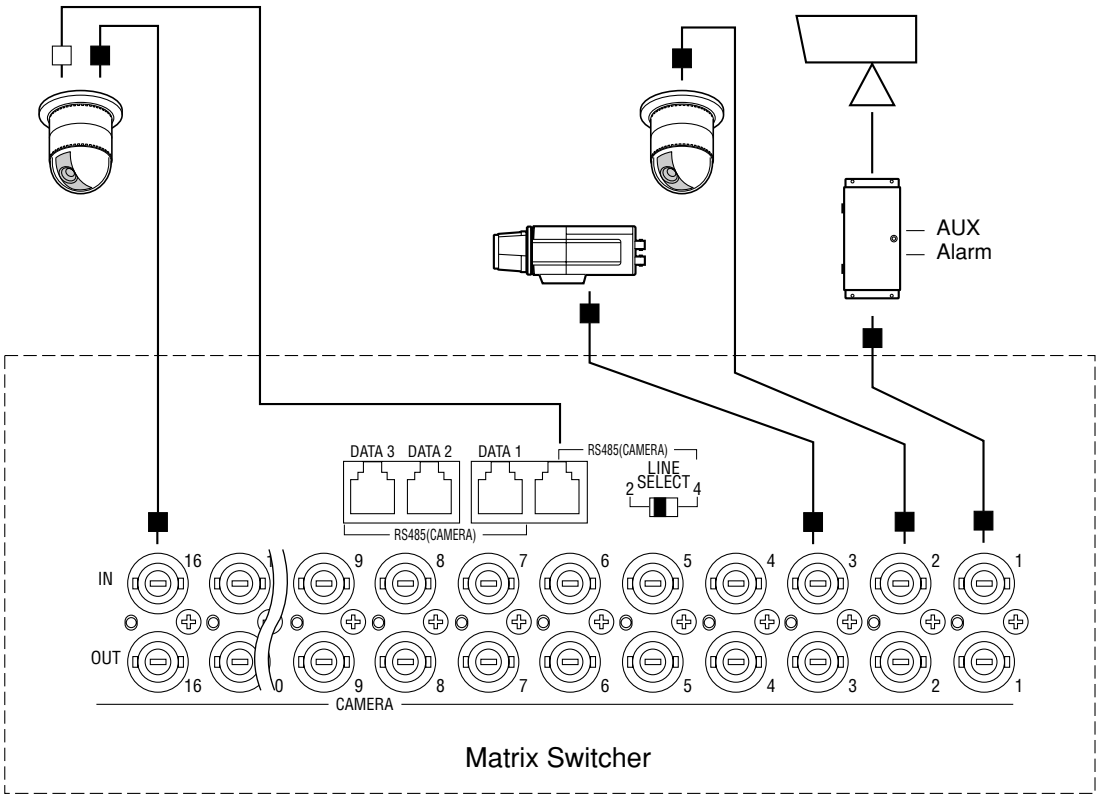
**Notes:**

- Make sure that the cable length is less than 900 m (3 000 ft) between the camera site and the unit when using RG-59/U, BELDEN 9259 or equivalent cables.
- If you use locally procured cables, it is important to use only a data-grade cable, which is suitable for RS-485 communication (shielded 2-wire twisted cable).
- When the cable length is extended, cable compensation is available. (Refer to pp. 74 and 94.)

Connect non-multiplex type cameras to the CAMERA IN connectors 1 to 16. For cameras equipped with RS-485 communication facilities, connect the RS-485 cable as follows.

Check the camera addresses when using RS-485 cameras. Operations from the system controller will be invalid if the camera addresses are set improperly.

- Use addresses from 1 to 16 for individual cameras.
- Do not set the same address for more than one camera in an RS-485 chain.
- Before connecting the RS-485 camera(s) to DATA 1, 2 and/or 3, configure the system through WJ-SX150A Administrator Console.



## ■ Connection for RS-485 Type Camera

There are two options to connect the camera with the matrix switcher, depending on the distance between them.
One is "Home Run" wiring and the other is daisy chain wiring. "Home Run" wiring has the transmission stability with less transmission loss, and daisy chain wiring has connection flexibility with less data ports occupied. For data-multiplex type cameras, 900 meters (3 000 ft) is the limit to use coaxial cable such as RG-59/U, BELDEN 9259 or equivalent.

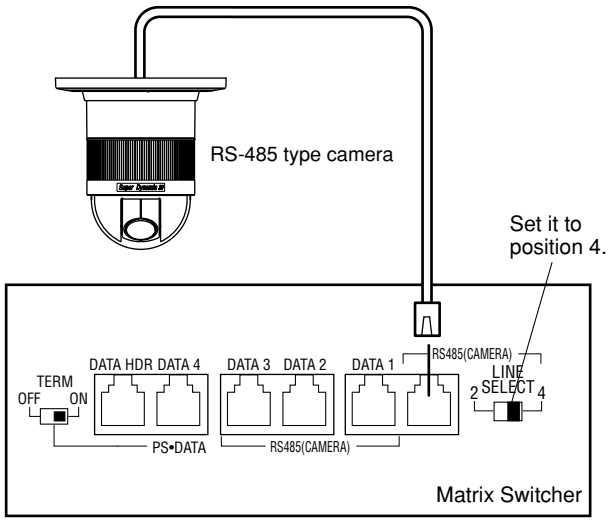
**Note:** If more distance is required, use cameras and matrix switcher with RS-485 communication feature. Remote control becomes possible.

## ● "Home Run" Wiring

1. Connect with a RS-485 camera in "Home Run" wiring as shown in the figure.
2. Set the LINE SELECT switch to 2 or 4.

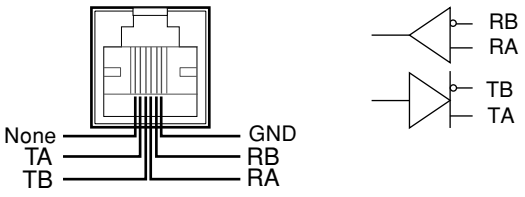
**Notes:**

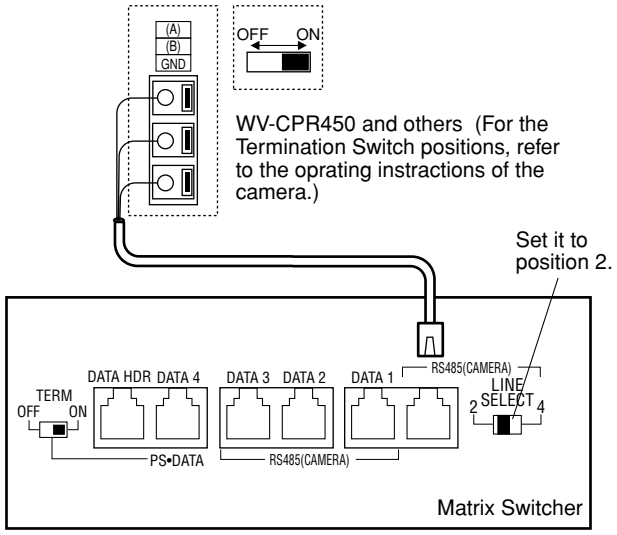
- Before connecting RS-485 cameras to DATA1 to 3, data port setting through WJ-SX150A Administrator Console is necessary. (Refer to p. 96 Data Port.)
- Recommended for RS-485 communication is AWG#22 or thicker one. The cable should be shielded, two-wire, twisted pair, and with low impedance.
- Set the LINE SELECT switch to 4 when programming preset position of WV-CSR600/650 Series camera is connected to the unit.




**RS485 Port**

Matrix switcher's rear panel




## ● Daisy Chain Wiring

1. Draw up a plan for connection between the cameras and the input channels of the matrix switcher, and the assignment of unit addresses to cameras.

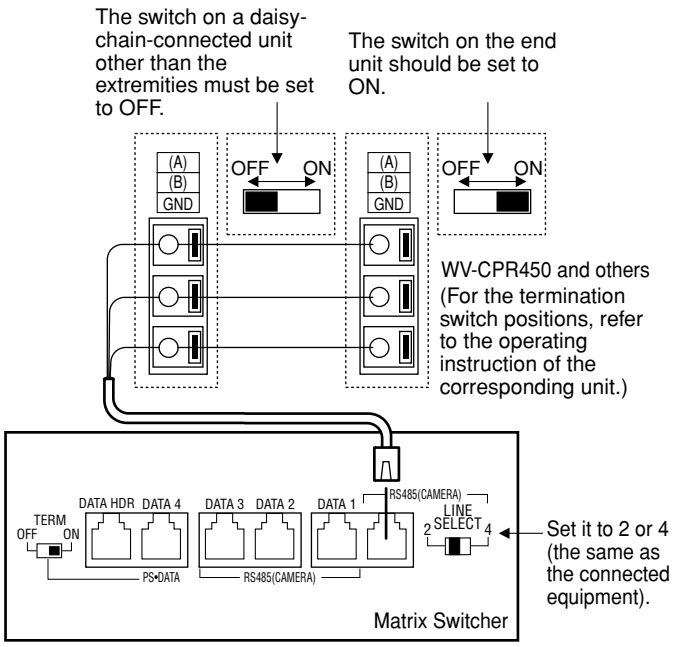
2. Set the LINE SELECT switch to 2. Also, set the connected device's switch if required.

3. Connect one end of the cable to RS-485 (CAMERA), and the other end to the first camera in the chain, as shown in the figure. Repeat this procedure for all cameras.

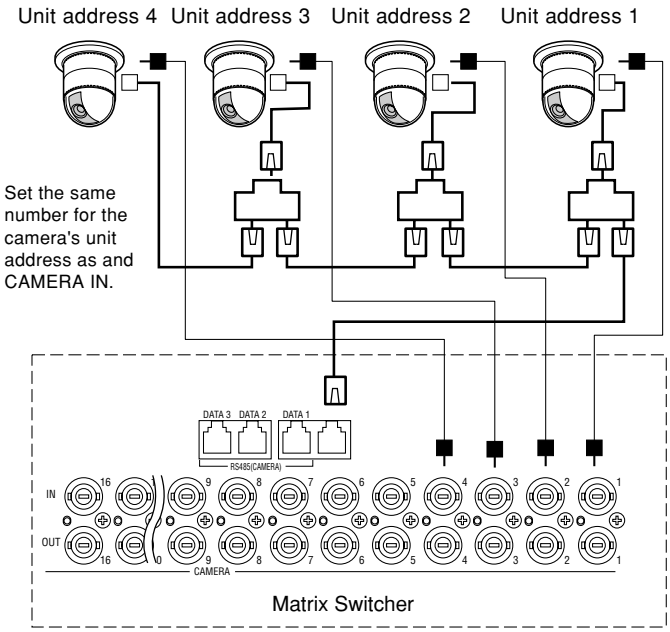
4. Set the termination switches of the cameras at the chain ends to ON. Camera's termination switches must be set to OFF except the ones at the chain ends.

**Notes:**

- Set the same number for the camera's unit address as and CAMERA IN.
- Check the settings of the camera addresses when using RS-485 cameras. Operations from the system controller will be invalid if the camera addresses are set improperly.
- Do not use addresses other than 1 to 16 for individual cameras (More than 17 cameras are not allowed).
- Do not set the same address for more than one camera in an RS-485 chain.
- Termination is the key to data transmission and reception in the chain. While the other switches are set to OFF, only the switches at the chain ends must be set to ON.
- The termination of this unit's RS-485 camera port is always set to ON. Connect the unit at the end of the daisy chain.
- The more equipment there is in the chain, the slower the response may be.



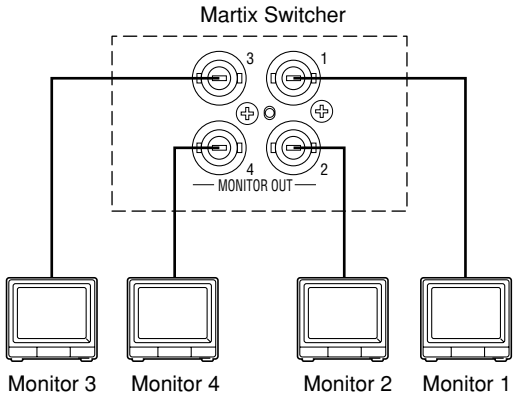

Auto termination works inside the matrix switcher.




## ■ Connection with the Monitors

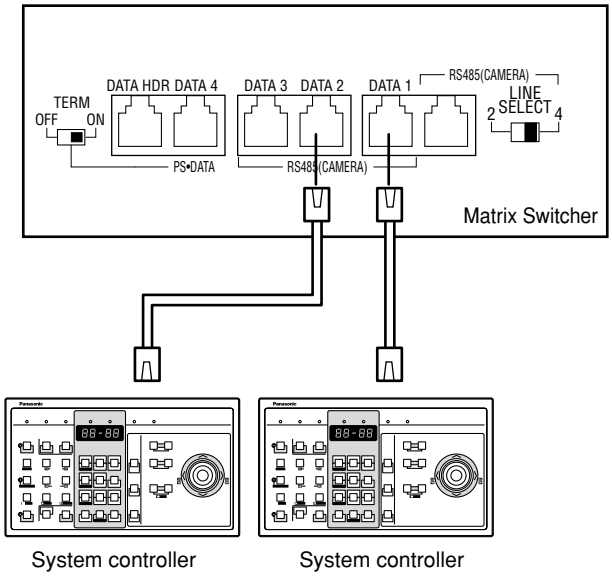
Connect the monitors to the MONITOR OUT connectors at the unit's rear panel with the coaxial cable.

The connectors MONITOR OUT 1 to 4 are associated to Monitor 1 to 4. When you control the monitors from a PS·Data controller, the connectors MONITOR OUT are associated to Unit 1 to 4.

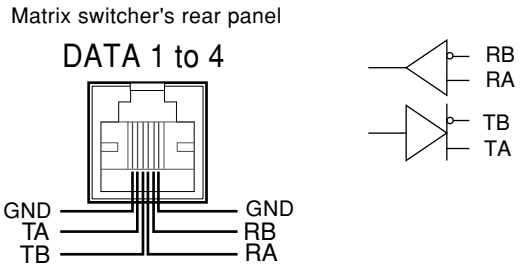


## ■ Connection with the System Controllers

Connect the system controller to the DATA 1 to 4 port at the unit's rear panel with the modular cable.




**DATA1 to DATA4 Port**

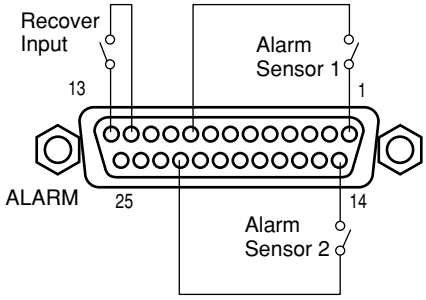



**Notes:**

- Up to four system controllers are connectable.
- Connect them in home run.
- In the factory default setting, the DATA 4 port is a PS·Data terminal. To connect a terminal-mode system controller to this port, you need to change the data port setting through SETUP MENU or WJ-SX150A Administrator Console. (Refer to pp. 74 or 96.)

## ■ Connection with the Alarm Sensors

Connect the sensor switches to the unit's alarm port, as shown in the example.




| Pin No. | Designation | Pin No. | Designation |
|---|---|---|---|
| 1 | Alarm Input 1 | 14 | Alarm Input 2 |
| 2 | Alarm Input 3 | 15 | Alarm Input 4 |
| 3 | Alarm Input 5 | 16 | Alarm Input 6 |
| 4 | Alarm Input 7 | 17 | Alarm Input 8 |
| 5 | Alarm Input 9 | 18 | Alarm Input 10 |
| 6 | Alarm Input 11 | 19 | Alarm Input 12 |
| 7 | Alarm Input 13 | 20 | Alarm Input 14 |
| 8 | Alarm Input 15 | 21 | Alarm Input 16 |
| 9 | GND | 22 | GND |
| 10 | Alarm Output 1 | 23 | Alarm Output 2 |
| 11 | Alarm Output 3 | 24 | Alarm Output 4 |
| 12 | GND | 25 | GND |
| 13 | Recover Input | | |

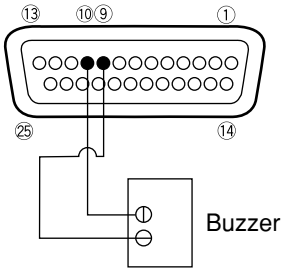
**Notes:**

- Alarm inputs that are simultaneous or with very short intervals will be ignored.
  Allow for at least 100 ms interval from one alarm input to the next.
- Confirm the alarm sensor type (N.O. or N.C.) and configure the system through SETUP MENU (OSD) or WJ-SX150A Administrator Console.
  The factory setting is N.O.
  **N.O.:** Normally Open alarm contact
  **N.C.:** Normally Closed alarm contact
- Alarm pins assigned as the time adjusting (TIME) terminals cannot be used as alarm input terminals.
- **The specification of Recover Input:** 5 V DC / 0 V (low-active)
  Recover Input, which resets alarm signals, is Pin No. 13 of the ALARM port. To reset alarm signals, contact GND and Recover Input.
  When you connect Digital Disk Recorder WJ-HD100 Series to the matrix switcher, set the recorder's alarm polarity to Open-collector low by setting the MODE switch #6 to off.

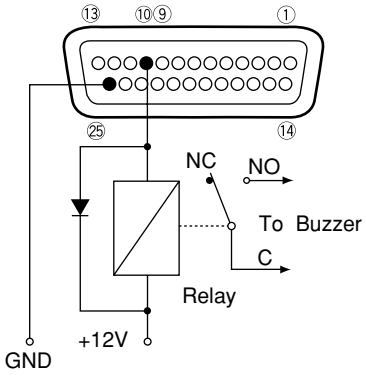
## ■ Connection with the Alarm Output

Pins #10, 11, 23 and 24 (open collector) turns to 0 V while the alarm is activated. These terminals can drive external warning devices such as a buzzer or lamp of up to 100 mA, 16 V DC. If the rating exceeds 100 mA, 16 V DC use a relay as shown in Example 2.
Alarm signals are output from the terminals until the reset.

**Example 1:** Direct drive connection




**Example 2:** Connection of devices exceeding drive




NC: Normally Closed Contact
NO: Normally Open Contact
C: Common

**Note:** An alarm signal is output from the Master unit and a unit activated by the alarm. Be careful of connections as the Master unit outputs alarm signals to directly-connected devices any time when an alarm is activated.

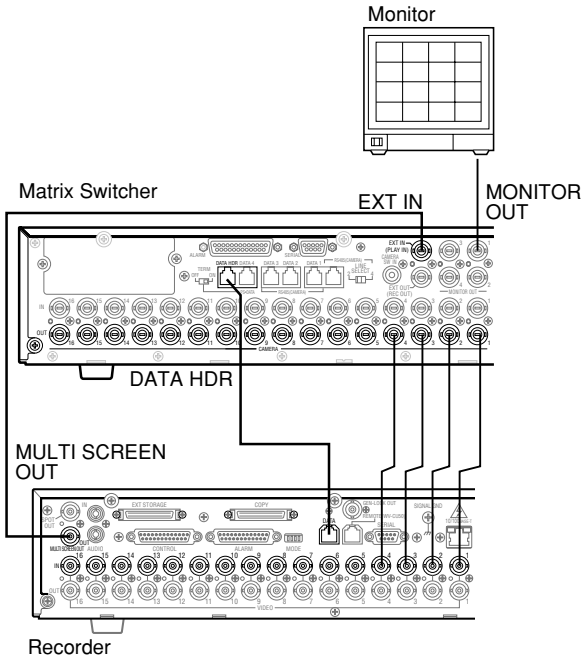
## ■ Connection with Digital Disk Recorder WJ-HD500 Series

**Note**: Refer to a service manual procurable in your area, for details on the connection with a recorder (after the network board installation) to operate via LAN or the Internet.

### ● To Confirm the Images from a Recorder Connected to the Unit

The following is the description of the connection between a recorder and this unit to confirm the images from the recorder.

1. Set the unit address of the recorder to 1. Then, confirm that the recorder's CAMERA GENLOCK is set to OFF in its SETUP MENU. (Refer to the recorder's operating instructions.)
2. Connect the unit's CAM OUT 1 to 16 connectors to the recorder's VIDEO IN 1 to 16 connectors with a coaxial cable.
3. Connect the unit's EXT IN connector to the recorder's MULTI SCREEN OUT connector with a coaxial cable.
4. Connect the unit's DATA HDR connector to the recorder's DATA port with a modular cable.
   (The control data and alarm signal will be output from the unit to the recorder.)




**Notes:**

- You cannot record the camera images in maximum recording rate through this connection. Refer to the next connection example in this page.

- Make sure the recorder's unit address is set to 1 through SETUP MENU or WJ-SX150A Administrator Console. (Refer to pp. 71 or 97.) If another number is selected, you cannot control the recorder.

## ● To Record the Camera Images in Maximum Recording Rate

The following is the description of the connection between a recorder and this unit for the maximum-rate recording.

1. Set the unit address of the recorder to 1. Then, set the recorder's CAMERA GENLOCK to ON in its SETUP MENU. (Refer to the recorder's operating instructions.)

2. Connect the unit's CAM OUT 1 to 16 connectors to the recorder's VIDEO IN 1 to 16 connectors with a coaxial cable.

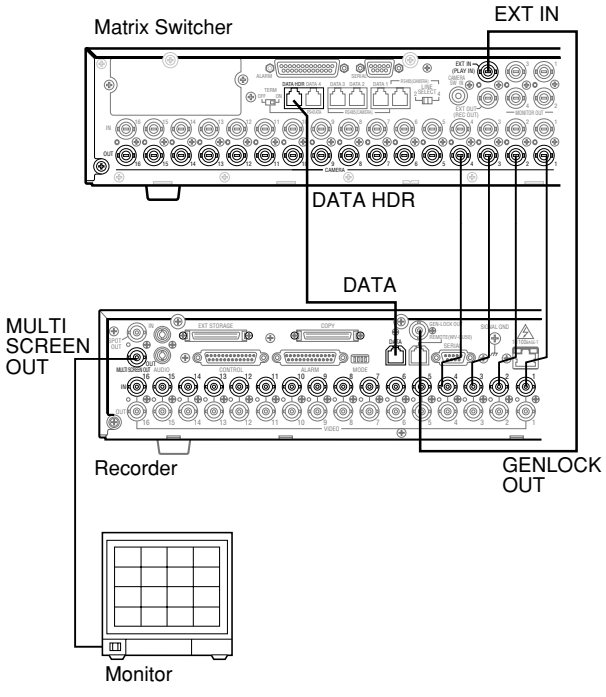
3. Connect the unit's EXT IN connector to the recorder's GENLOCK OUT connector with a coaxial cable.

4. Connect the unit's DATA HDR connector to the recorder's DATA port with a modular cable.
   (The control data and alarm signal will be output from the unit to the recorder.)

5. After the connection, set the unit's EXT IN to GENLOCK ON through SETUP MENU or WJ-SX150A Administrator Console (Refer to pp. 71 or 97).

**Notes:**

- You need WJ-HD500A or a newer model for the maximum-rate recording.
- The playback, multiscreen output or live images from the recorder are not displayed on Monitor 1 to 4. To confirm the images, you need to connect another monitor with the recorder.
- The recorder will not operate if its unit address is set to other than 1.
- Make sure the recorder's unit address is set to 1 through SETUP MENU or WJ-SX150A Administrator Console. (Refer to pp. 71 or 97.) If another number is selected, you cannot control the recorder.



## ● To Control a Recorder via the Network

The following is the description of the connection between a recorder and this unit to control the recorder via the network.

1. Set the recorder's unit address to a number 5 or larger . (Refer to the recorder's operating instructions.)

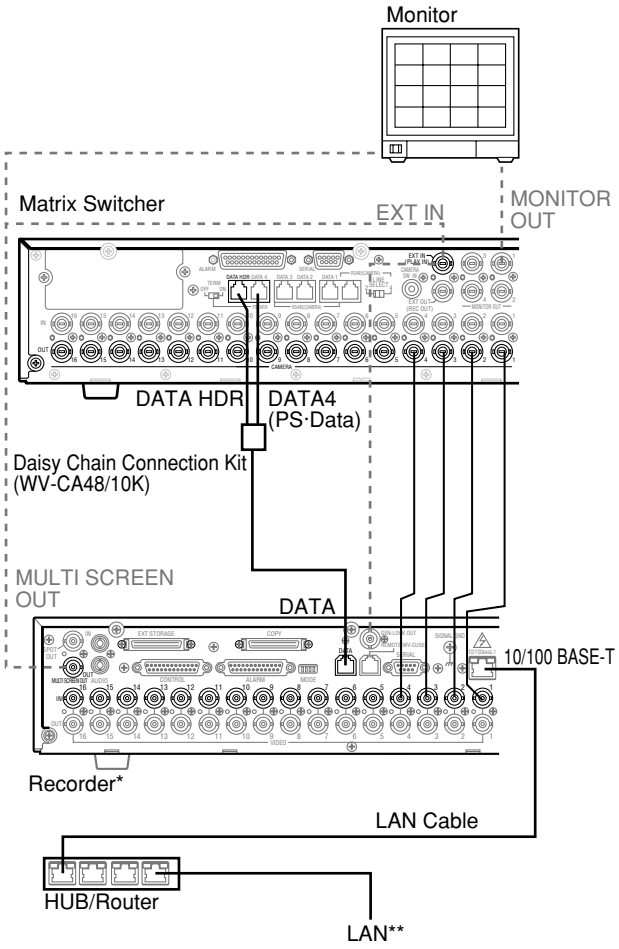
2. Connect the unit's CAM OUT 1 to 16 connectors to the recorder's VIDEO IN 1 to 16 connectors with a coaxial cable.

3. Connect the unit's DATA HDR and DATA4 connectors to the recorder's DATA port with a daisy chain connection cable kit (WV-CA48/10K).
   (The control data and alarm signal will be output from the unit to the recorder.)

4. Select the recorder's new unit address, which is set in Step 1, in 600 RECORDER (refer to p. 71 ) of SETUP MENU or the Recorder (refer to p. 97 ) window of WJ-SX150A Administrator Console.

5. Through a browser, set the unit address of an optional network board (WJ-HDB502) to a number other than 1. (Refer to WJ-HDB502 Operating Instructions.)

6. Refer to p. 38, p. 40 and p. 41 for MONITOR OUT connection, MULTI SCREEN OUT connection, and EXT IN connection.




* WJ-HD500A or Newer Models with Network Board (WJ-HDB502)
** LAN : Local Area Network

**Notes:**

- You will need WJ-HD500A or a newer model, in which an optional network board (WJ-HDB502) is installed.
- Select the PS·Data protocol for the DATA 4 setting. (Refer to p. 74 CAMERA/DATA1 - 4 PORT or p. 96 Data Port.) If the terminal mode is selected, you cannot control the recorder.
- The recorder will not be operable if its unit address is set to 1/2/3/4.
- If the recorder's unit address in Step 1 and the recorder setting in Step 4 are different, the recorder will not be operable.
- In these connections, you cannot use a PS·Data system controller.

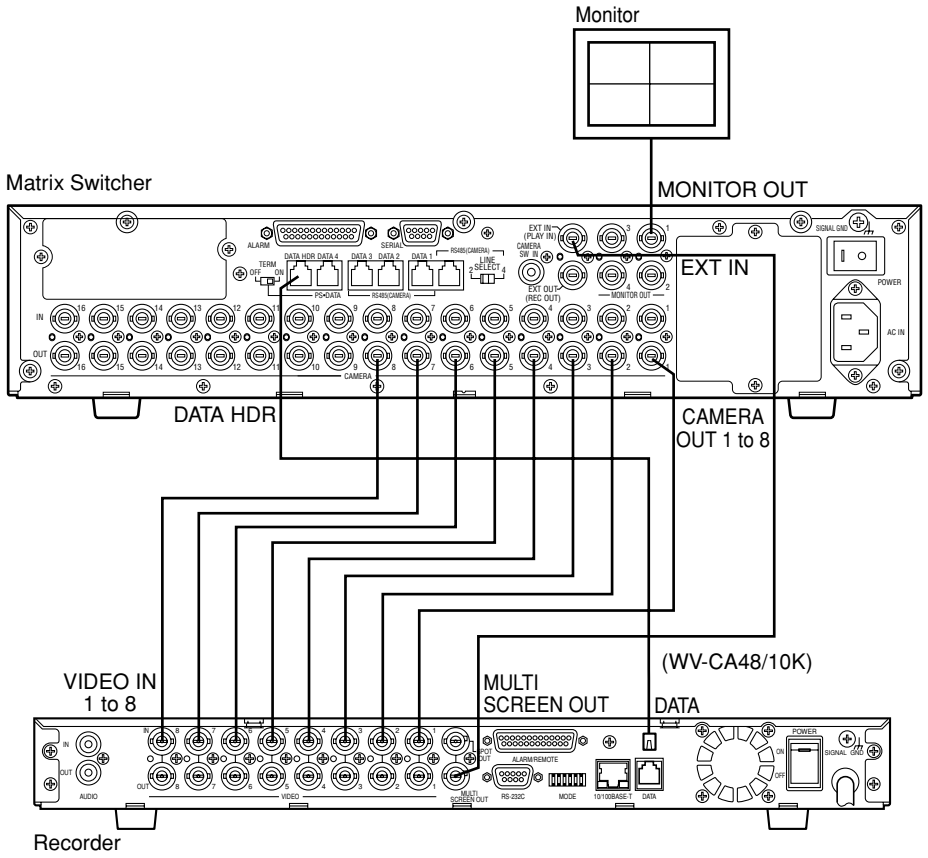
# ■ Connection with Digital Disk Recorder WJ-HD200 Series

**Note**: Refer to a service manual procurable in your area, for details on the connection with a recorder to operate via LAN or the Internet.

## ● To Confirm the Images from a Recorder Connected to the Unit

The following is the description of the connection between a recorder and this unit to confirm the images from the recorder.

1. Set the unit address of the recorder to 1. (Refer to the recorder's operating instructions.)
2. Connect the unit's CAM OUT 1 to 8 connectors to the recorder's VIDEO IN 1 to 8 connectors with a coaxial cable.
3. Connect the unit's EXT IN connector to the recorder's MULTI SCREEN OUT connector with a coaxial cable.
4. Connect the unit's DATA HDR connector to the recorder's DATA port with a modular cable.
   (The control data and alarm signal will be output from the unit to the recorder.)



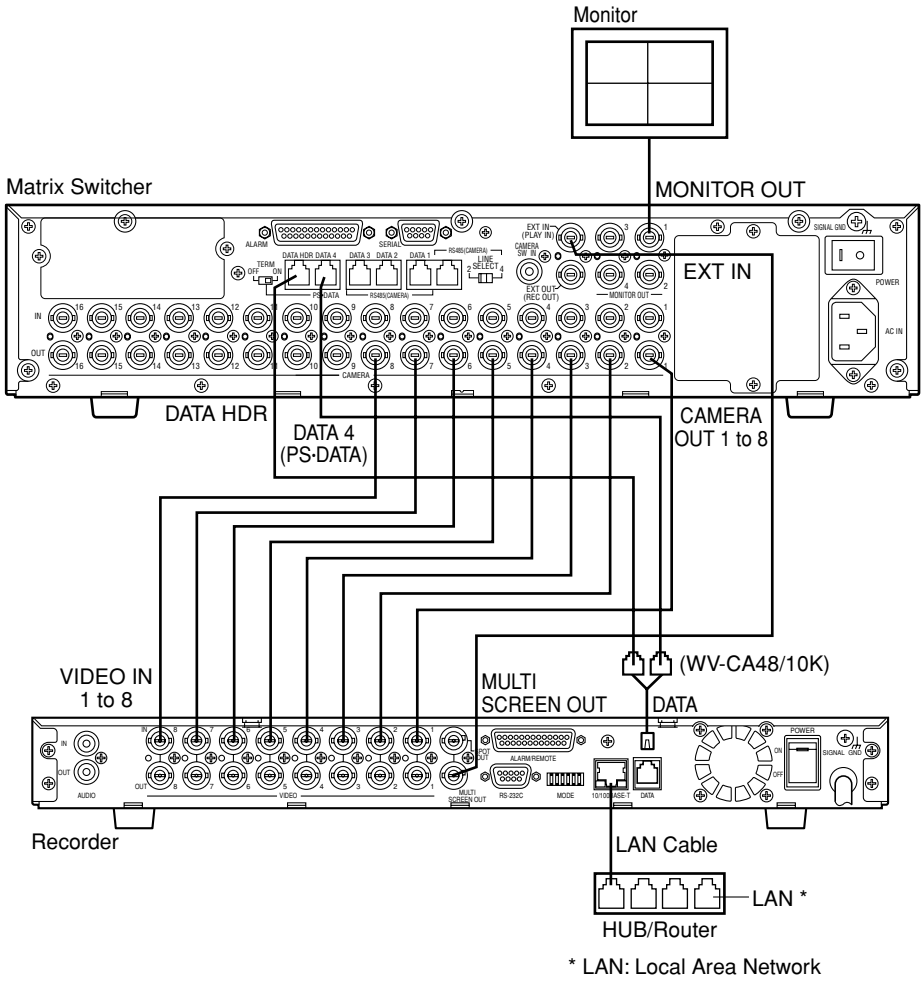

**Notes:**

- If you use two WJ-HD200 Series recorders, you cannot control the recorders with the system controller connected to the Master unit. When recording the images from CAM IN 1 to 16, it is recommended to use WJ-HD500 Series recorders.
- Make sure the recorder's unit address is set to 1 through SETUP MENU or WJ-SX150A Administrator Console. (Refer to pp. 71 or 97.) If another number is selected, you cannot control the recorder.

## ● To Control a Recorder via the Network

The following is the description of the connection between a recorder and this unit to control the recorder via the network.

1. Set the recorder's unit address to a number 5 or larger . (Refer to the recorder's operating instructions.)
2. Connect the unit's CAM OUT 1 to 8 connectors to the recorder's VIDEO IN 1 to 8 connectors with a coaxial cable.
3. Connect the unit's EXT IN connector to the recorder's MULTI SCREEN OUT connector with a coaxial cable.
4. Connect the unit's DATA HDR and DATA4 connectors to the recorder's DATA port with a daisy chain connection cable kit (WV-CA48/10K).
5. Select the recorder's new unit address, which is set in Step 1, in 600 RECORDER (refer to p. 71 ) of SETUP MENU or the Recorder (refer to p. 97) window of WJ-SX150A Administrator Console.
6. Through a browser or the recorder's SETUP MENU, set the CTL-UNIT ADDR to a number other than 1. (Refer to the recorder's operating instructions.)



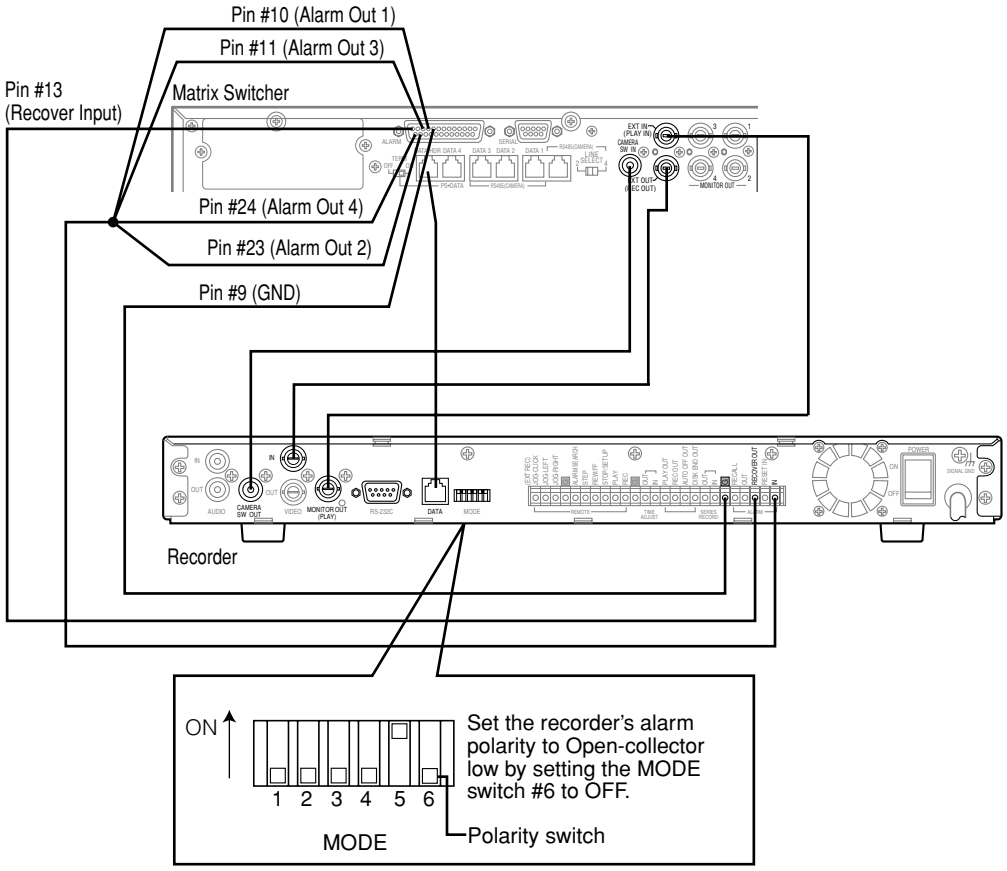

**Notes:**

- Select the PS·Data protocol for the DATA 4 setting. (Refer to p. 74 CAMERA/DATA1 – 4 PORT or p. 96 Data Port.) If the terminal mode is selected, you cannot control the recorder.
- The recorder will not be operable if its unit address is set to 1/2/3/4.
- If the recorder's unit address in Step 1 and the recorder setting in Step 5 are different, the recorder will not be operable.
- In these connections, you cannot use a PS·Data system controller.
- If you use two WJ-HD200 Series recorders, you cannot control the recorders with the system controller connected to the Master unit. When recording the images from CAM IN 1 to 16, it is recommended to use WJ-HD500 Series recorders.

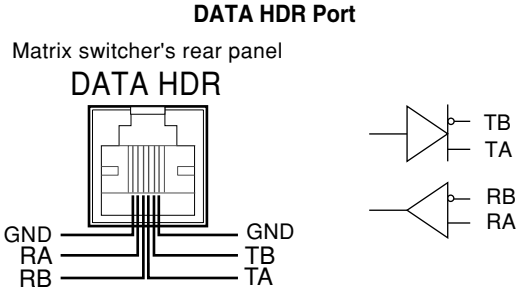
# ■ Connection with Digital Disk Recorder WJ-HD100 Series MUX

1. To record the camera images with Digital Disk Recorder WJ-HD100 Series, install an optional Multiplexer board in the matrix switcher.
2. Connect the matrix switcher's EXT OUT (REC OUT) to the digital disk recorder's VIDEO IN with a coaxial cable.
3. Connect the matrix switcher's EXT IN (PLAY IN) to the digital disk recorder's MONITOR OUT (PLAY) with a coaxial cable.
4. Connect the matrix switcher's DATA HDR to the digital disk recorder's DATA with a modular cable.
5. Connect the matrix switcher's CAMERA SW IN to the digital disk recorder's CAMERA SW OUT with an RCA-pin cable.
6. Select "HD100" for 600 RECORDER in SETUP MENU. (Refer to p. 71.)
7. Conform the parameter of 740 CAMERA/DATA 1 - 4 PORT to the setting of the recorder.
   The following parameters are fixed.
   **Data bit:** 8 bits
   **Parity check:** None
   **Stop bit:** 1 bit
8. Conform the parameter of 620 RECORDER UNIT ADDRESS in SETUP MENU to the setting of the recorder. (Refer to the recorder's operating instructions for the unit address.)

**Note:** After the connection, configure the system through SETUP MENU and WJ-SX150A Administrator Console.

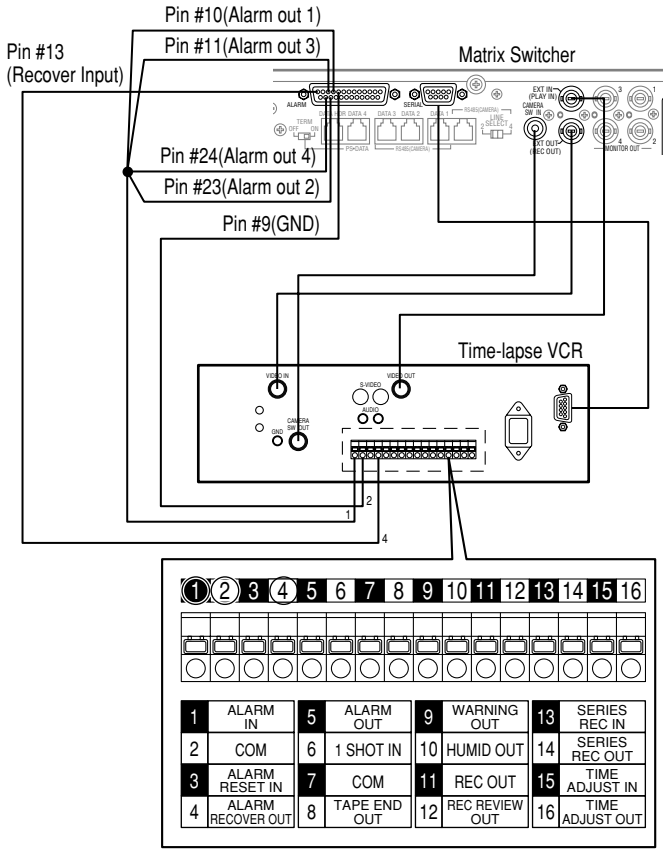



## ● DATA HDR Port



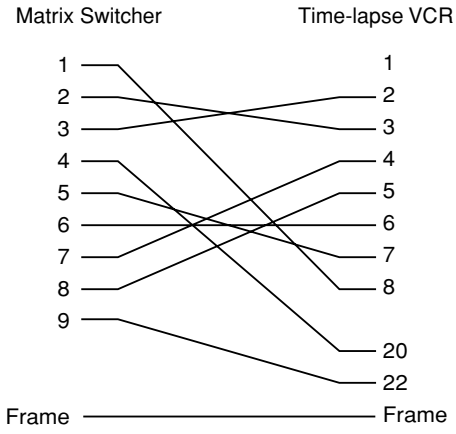
## ■ Connection with the Time-lapse VCR (Panasonic Models) MUX

1. Configure the parameters of the Multiplexer functions in the Multiplexer Mode (refer to p. 98) window of WJ-SX150A Administrator Console.
   **Note:** To put a file from PC to the unit, select PC in 600 RECORDER in SETUP MENU. (Refer to p. 71.) When VCR is selected, parameter configuration in the Multiplexer Mode window is unavailable.
2. After Step 1, select VCR for 600 RECORDER in SETUP MENU. (Refer to p. 71.)
3. Conform the communication speed (SPEED) for 740 CAMERA/DATA 1- 4 PORT in SETUP MENU to that of the time-lapse VCR. (Refer to pp. 74 and 75.)
   The following parameters are fixed.
   **Data bit:** 7 bits
   **Parity check:** ODD
   **Stop bit:** 1 bit
4. Connect the matrix switcher's EXT OUT (REC OUT) to the time-lapse VCR's VIDEO IN with the coaxial cable.
5. Connect the matrix switcher's EXT IN (PLAY IN) to the time-lapse VCR's VIDEO OUT with the coaxial cable.
6. Connect the matrix switcher's SERIAL to that of the time-lapse VCR with a 9-pin D-sub cable.
7. Connect the matrix switcher's CAMERA SW IN to the time-lapse VCR's CAMERA SW OUT with an RCA-pin cable.
   **Notes:**
   - Only Panasonic time-lapse VCRs which support RS-232C are usable. (Refer to Cable Specifications on the next page for details of cables.)
   - Both of the time-lapse VCR and PC cannot be connected to the matrix switcher.
   - When configuring the system through WJ-SX150A Administrator Console, pull out the time-lapse VCR's cable and connect the PC's cable to the serial port.
   - To use the alarm recording function, connect the matrix switcher's all alarm output terminals (Alarm Output 1 to 4) to the time-lapse VCR's ALARM IN.
   - Be sure to activate auto-recovery for the VCR's alarm reset function.

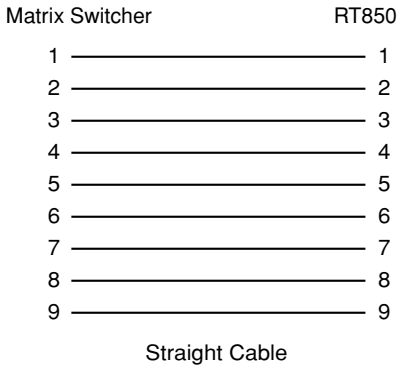


## ● Cable Specifications

AG6730, AG6740




RT850

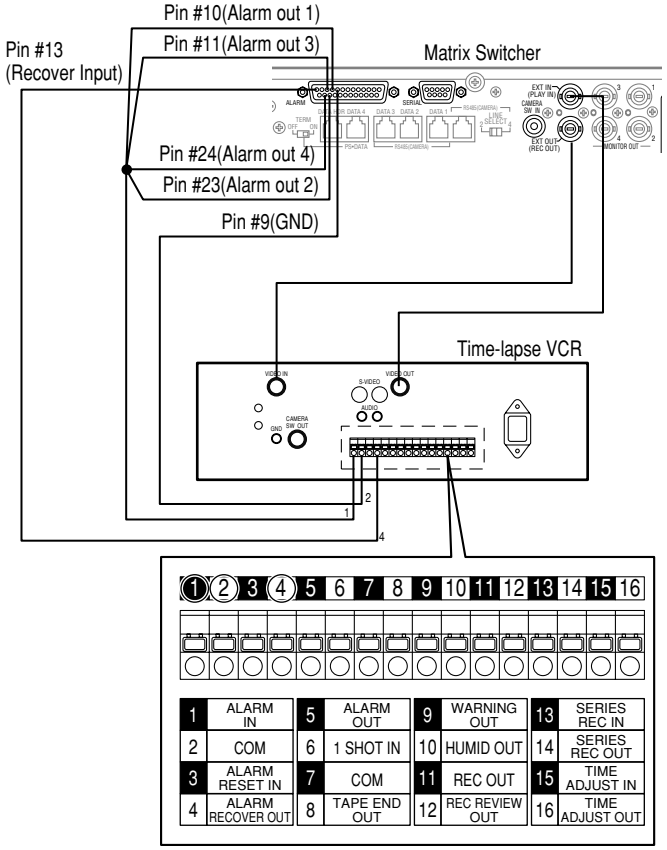



## ■ Connection with the Time-lapse VCR (Non-Panasonic Models) MUX

1. To record the camera images through a time-lapse VCR, install an optional Multiplexer board in the matrix switcher.
2. Select OFF for 600 RECORDER in SETUP MENU. (Refer to p. 71.)
3. Connect the matrix switcher's EXT OUT (REC OUT) to the time-lapse VCR's video input connector with the coaxial cable.
4. Connect the matrix switcher's EXT IN (PLAY IN) to the time-lapse VCR's video output connector with the coaxial cable.

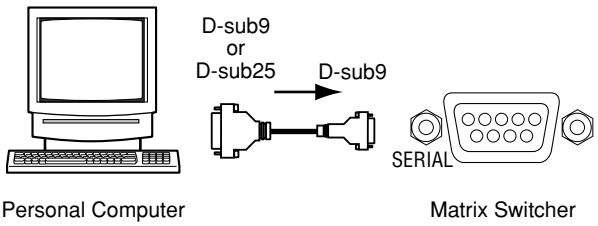
**Notes:**

- To use the alarm recording function, connect the matrix switcher's all alarm output terminals (Alarm Output 1 to 4) to the time-lapse VCR's ALARM IN.
- Be sure to set the VCR to automatically recover from alarm reset.



## ■ Connection with the PC

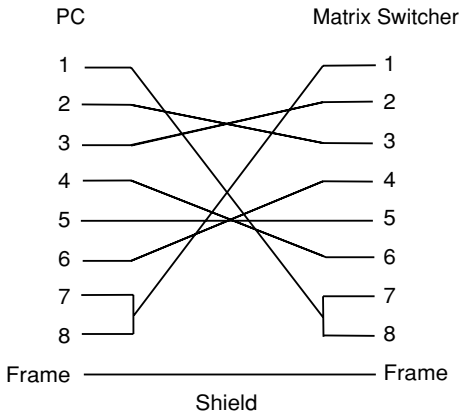
1. Conform the communication speed (SERIAL PORT SPEED) parameter in SETUP MENU to that of the PC.
2. Connect the matrix switcher's serial port to that of the PC with the 9-pin D-sub cable.




**Notes:**

- The following parameters are fixed.
  **Data bit:** 8 bits
  **Parity check:** none
  **Stop bit:** 1 bit
- Refer to Cable Specifications in this page for details on cables.

## ● Cable Specifications




## ■ Time Adjustment with an External Equipment

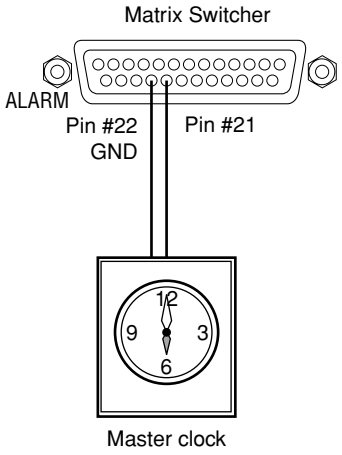
The specified external devices can output the time adjusting signal to the matrix switcher.
This signal can adjust the time by up to ± 30 seconds every hour.
To use this function, it is necessary to assign the alarm input terminal(s) (pin # 1 to 16) to the time adjusting terminal(s).
SETUP MENU or WJ-SX150A Administrator Console can assign the signal.

**Note:** In the master-slave connection, time setting of every unit can be synchronized when the time adjusting signal is input to any unit.

## ● Master Clock Connection Example for Time Adjustment

Connect the matrix switcher's time adjusting terminal to those of the master clock with the twisted pair cable.
The figure below shows the case in which Alarm Input 16 is assigned as the time adjusting terminal.

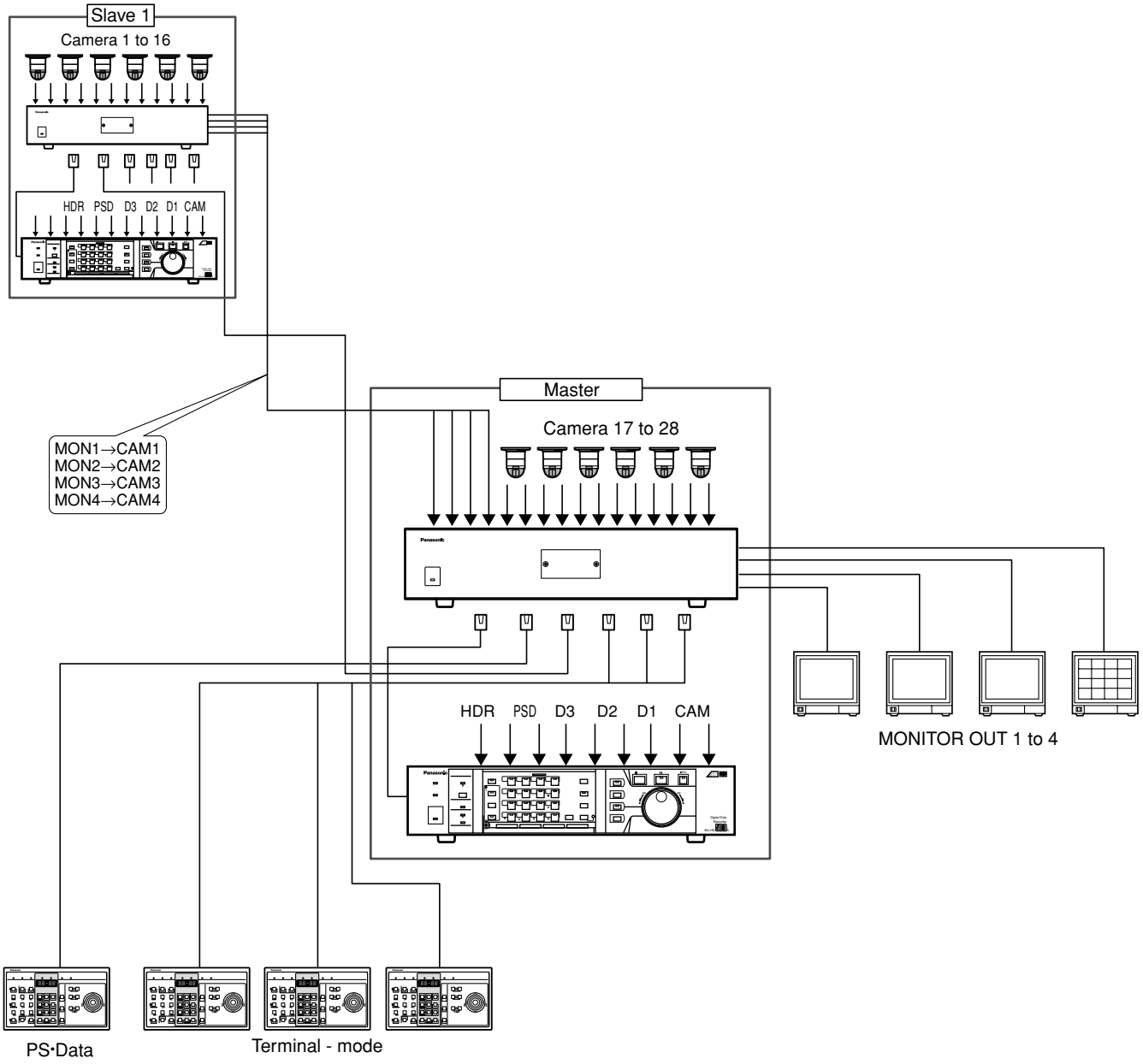
**Note:** A master clock with N.O. (Normally Open alarm contact)-type output is connectable.



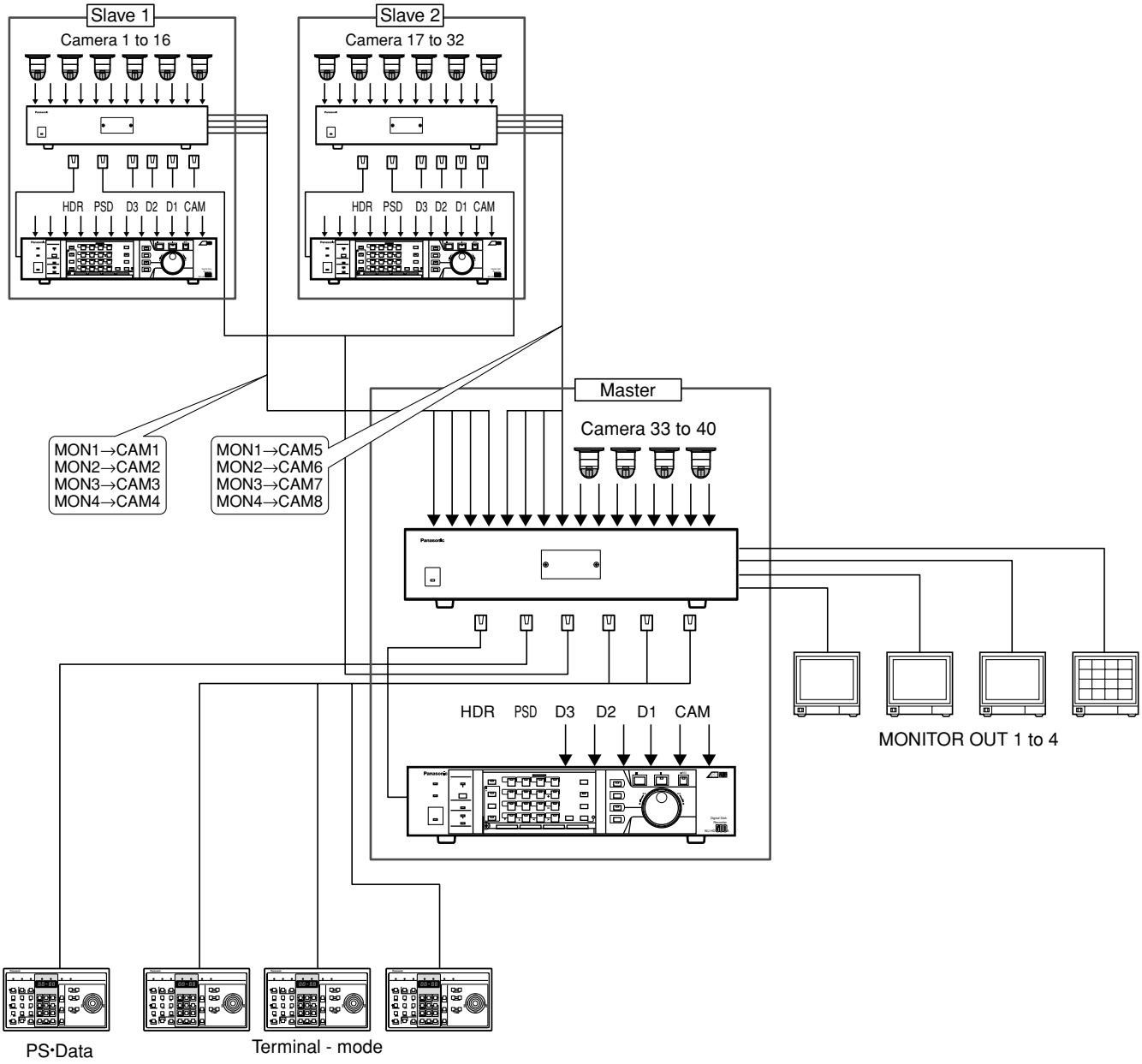
# ■ Master-slave Connection

The following are master-slave connection patterns.

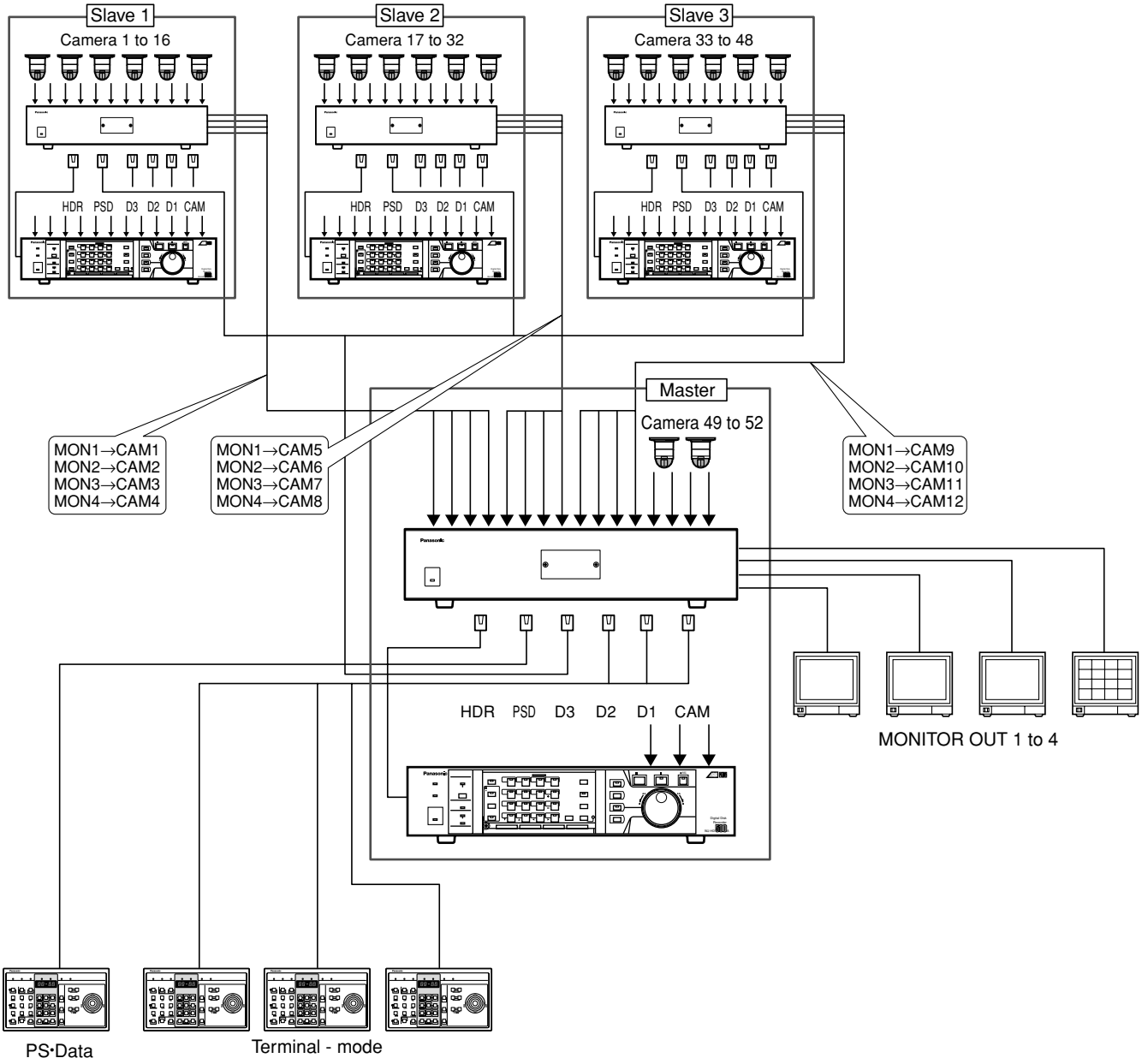
**Pattern 1:** Master and Slave 1 are connected in the system.



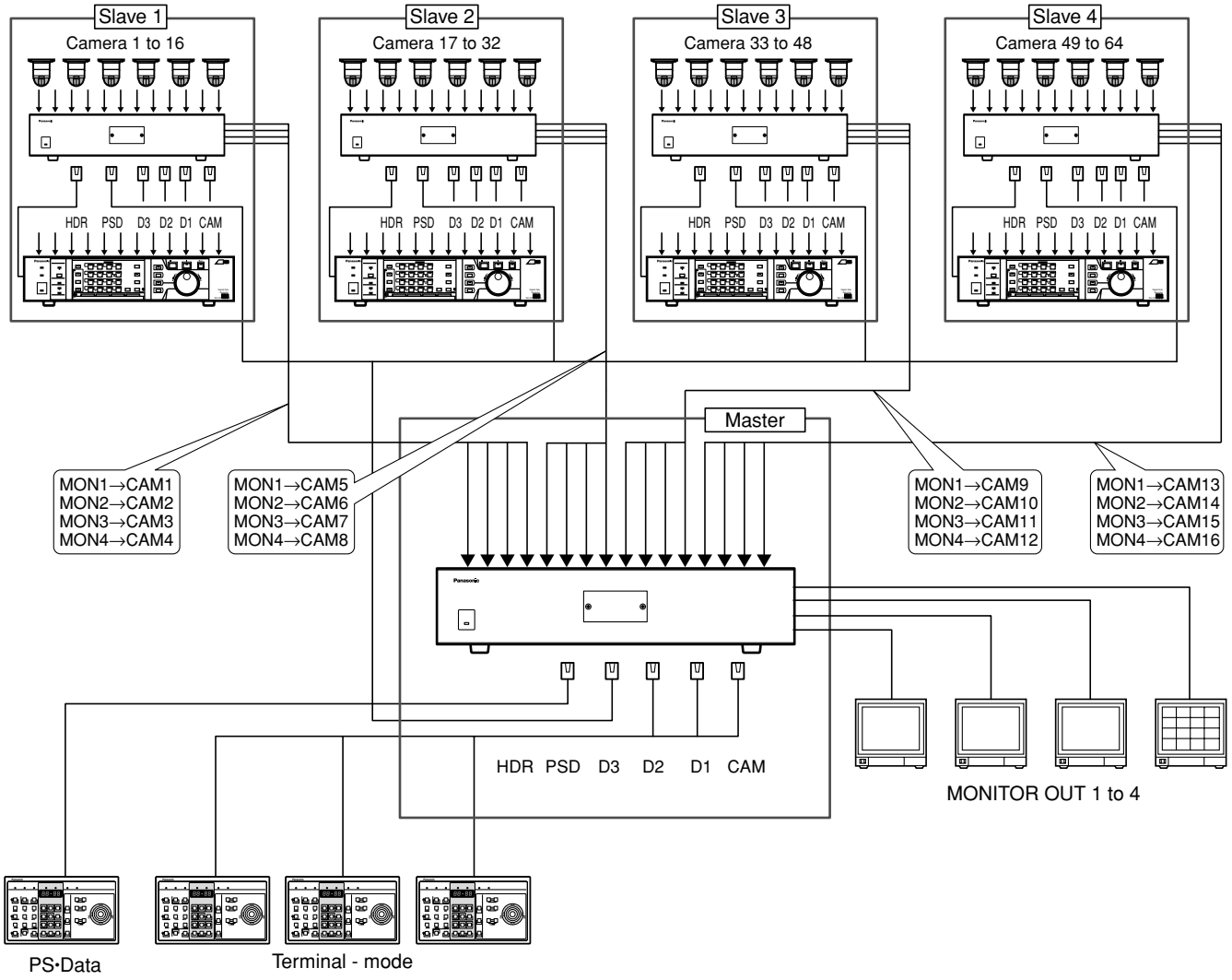
**Pattern 2:** Master, Slave 1 and 2 are connected in the system.



**Pattern 3:** Master, Slave 1 to 3 are connected in the system.



**Pattern 4:** Master, Slave 1 to 4 are connected in the system.




**Note:** Before connections, make sure all the units have the same firmware version. You can see the firmware version of each unit in SETUP MENU. (Refer to pp. 72 and 73 710 MASTER-SLAVE.) In case there is a version difference, update the firmware of each unit to the newest using a CD-ROM. (Refer to pp.58 to 60 FIRMWARE UPDATE.)

## ● Preparation

Prepare the following items besides standard accessories.

- Personal computer x 1 (Refer to p. 79 Platform for details on system requirements.)
- 9-pin D-sub crossing cable x 1 (Used for connection between the PC and the Master unit)
- Phillips screwdriver x 1 (Used for opening the front panel and setting unit numbers)
- Coaxial cable* (Used for connection of the Master and Slave units)
- Cable Kit WV-CA48/10K* (Used for connection of more than one Slave unit)

* Necessary number will differ depending on the connection pattern.

## ● Unit Number Selection

Set the unit number selector of each unit to determine Master and slave n*. (Refer to the illustration and diagram in p. 24.)
*n is a unit number.

## ● Video Cable Connection

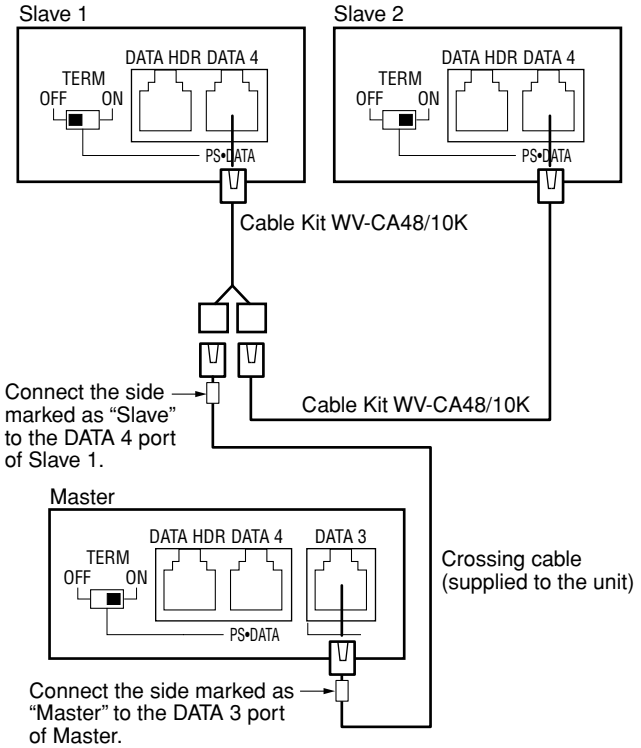
Connect the camera input connectors of Master and the monitor output connectors of Slave with coaxial cables as described in the diagram.

| Connection | Master | Slave |
|---|---|---|
| Master and Slave 1 | Camera Input 1 | Monitor Output 1 |
| | Camera Input 2 | Monitor Output 2 |
| | Camera Input 3 | Monitor Output 3 |
| | Camera Input 4 | Monitor Output 4 |
| Master and Slave 2 | Camera Input 5 | Monitor Output 1 |
| | Camera Input 6 | Monitor Output 2 |
| | Camera Input 7 | Monitor Output 3 |
| | Camera Input 8 | Monitor Output 4 |
| Master and Slave 3 | Camera Input 9 | Monitor Output 1 |
| | Camera Input 10 | Monitor Output 2 |
| | Camera Input 11 | Monitor Output 3 |
| | Camera Input 12 | Monitor Output 4 |
| Master and Slave 4 | Camera Input 13 | Monitor Output 1 |
| | Camera Input 14 | Monitor Output 2 |
| | Camera Input 15 | Monitor Output 3 |
| | Camera Input 16 | Monitor Output 4 |

## ● DATA Port Connection

- Connect the DATA 3 port of the Master unit and the DATA 4 port of the Slave units.
- Connect the Master and Slave units with the supplied crossing cable.
- Connect Slave and Slave with Cable Kit WV-CA48/10K.
- Set the termination selectors of the Master and terminal Slave unit to ON.
- Set the termination selectors of other Slave units to OFF.
- Connect system controllers to the Master unit. (Refer to p. 39.)

**Example:** Master, Slave 1 and 2 are connected in the system.




**Note:** System controllers cannot be connected to Slave units.

## ● Connection between the Units and Cameras

Connect each camera to CAMERA IN 1 to 16 of each unit. (Refer to p. 36 Connection with the Camera Sites.) Each camera has its own logical camera number.
The default setting of the logical camera numbers is as follows. (The logical camera numbers can be configured in SETUP MENU and WJ-SX150A Administrator Console.)

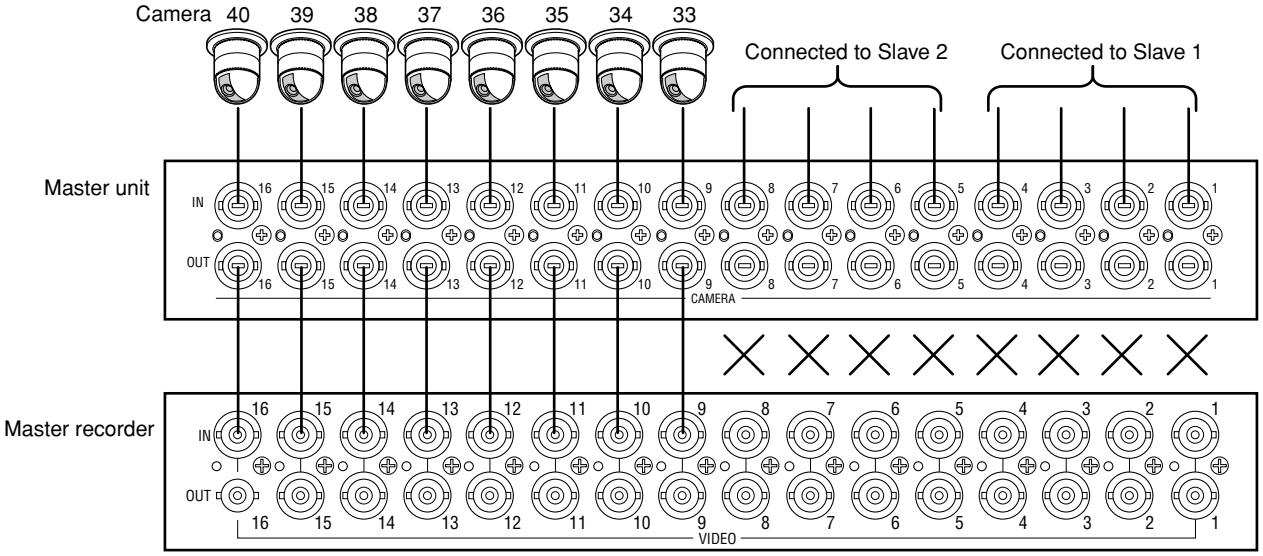
| Camera total number | Cameras connected to Master | Cameras connected to Slave 1 | Cameras connected to Slave 2 | Cameras connected to Slave 3 | Cameras connected to Slave 4 |
|---|---|---|---|---|---|
| 1 to 16 | 1 to 16 | – | – | – | – |
| 17 to 28 | 17 to 28 | 1 to 16 | – | – | – |
| 29 to 40 | 33 to 40 | 1 to 16 | 17 to 32 | – | – |
| 41 to 52 | 49 to 52 | 1 to 16 | 17 to 32 | 33 to 48 | – |
| 53 to 64 | – | 1 to 16 | 17 to 32 | 33 to 48 | 49 to 64 |

Connect the cameras and the Master/Slave 1 to 4 with the coaxial cables according to the diagram.

## ● Recorder Connection

Connect recorders to each Master/Slave units. Refer to pp. 40 to 47 for connection procedures.

**Example:** Master, Slave 1 and 2 are connected in the system.




**Notes:**

- Recorders and/or the Multiplexer board cannot be connected to the Master unit when Slave 1 to 4 are connected in the system.
- The Master unit's camera channels which loop thru Slave units cannot be connected to the recorder. (In the illustration, the Master unit's CAM OUT 1 to 8 and the recorder's VIDEO IN 1 to 8 cannot be connected.) The Master recorder can record only images from directly-connected cameras when the Master and Slave 1/2/3 are connected together. (For example in the illustration, the Master recorder can record images from Cam 33 to 40.) Camera input signals from Slave units to the Master unit are not for recording but for cross point switching.

## ● Connection with the PC

Connect the PC and the Master unit. (Refer to p. 48 for the connection procedure.)

## ● Software Setup

After connecting the PC to the Master unit, do the setup procedure with SETUP MENU or WJ-SX150A Administrator Console.

**• With SETUP MENU**

1. Turn the power of each unit to ON.
2. Log-in the system with a system controller. (Refer to p. 104.)
3. Open SETUP MENU. (Refer to p. 63.)
4. Open “700 SYSTEM” - “710 MASTER-SLAVE”. (Refer to pp. 72 and 73.)
5. Set the connected Slave units to ON. “Is the MASTER-SLAVE changed? NO” will appear.
6. Change NO to YES by pressing the NEXT or PREV button on the system controller.
7. Press the SET button. The setting will be saved and you will log-out from SETUP menu.

**• With WJ-SX150A Administrator Console**

1. Turn the power of each unit to ON.
2. Open WJ-SX150A Administrator Console. (Refer to p. 80.)
3. Open the Master-Slave window. (Refer to p. 81.)
4. Configure and save the settings by clicking on the Save Exit button. (Refer to p. 82.)
5. Open the “Put a file to SX150A” window. (Refer to p. 83.)
6. Click on the “OK” button. The setting data will be transferred to the Master unit.
7. Close the main window (refer to p. 80) to quit WJ-SX150A Administrator Console.

## ● Recorder Setup

When connecting a recorder with more than one video input (WJ-HD500 or WJ-HD200 Series), conform the LCN (logical camera number) settings of the unit to the camera number setting of a recorder. (Refer to pp. 73/82 and the recorder’s operating instructions.)

# WJ-SX150A SETUP PROCEDURES

# FIRMWARE UPDATE

This setting is required when there is a firmware version difference among each unit in the master-slave connection. Before the procedure, confirm the versions written on the label on each CD-ROM.

## ■ Installation of SX150A Program Writer

**Note:** Refer to p. 79 for the platform necessary for installation.

1. Insert the supplied CD-ROM into the PC.

2. Open the CD-ROM drive window.
   The file is located in the following directory.
   E: \PWriter\SetupPWriter.exe (E is the CD-ROM drive.)

3. Double-click the “SetupPWriter.exe” icon to begin the installation. The Welcome window will appear on the PC screen.




4. Press the NEXT button to continue the installation.

5. Respond to the dialog boxes by following the directions given.

## ■ Firmware Update of SX150A Program Writer

1. Connect the matrix switcher's serial port to that of the PC with the 9-pin D-sub cable. (Refer to p. 48.)

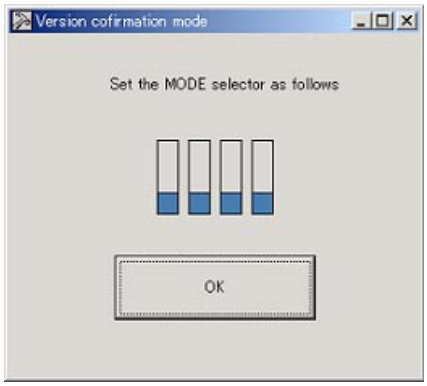
2. Launch SX150A Program Writer by selecting “Start” – “Programs” – “Panasonic” – “SX150A Program Writer”. The RS232C Setting window will appear on the PC screen.




3. Confirm whether the following are selected.
   Then, click on "SET".
   **Baud Rate:** 38400
   **Data Bit:** 8
   **Parity:** NONE
   **Stop Bit:** 1
   **Com Port:** 1 (Select the usable communication-port number of the PC.)

   **Note:** Conform the baud rate to the SERIAL port setting in 740 CAMERA/DATA 1 - 4 PORT. (Refer to pp. 74 and 75.) The factory default setting is 38400 bps.

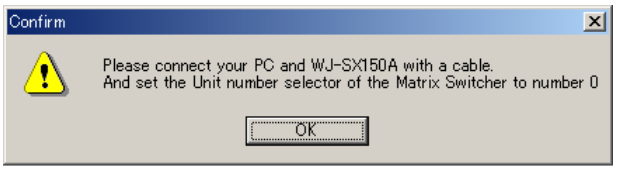
4. Set the mode selector at the front panel as shown in the Version confirmation mode window. Besides, make sure the unit number selector is set to “0”.




   In case you have changed the selector settings, do the following after Step 4.
   (1) Turn off the unit.
   (2) Turn on the unit again.

5.Click on the OK button in Version confirmation mode window.

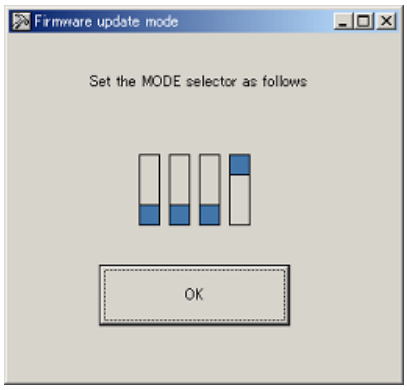
**Note:** If the selector settings are wrong when you do Step 5, the following message will appear to notify that version confirmation was failed.




In this case, confirm the connections and do Step 1 to 5 again.

6. Turn off the Master unit.

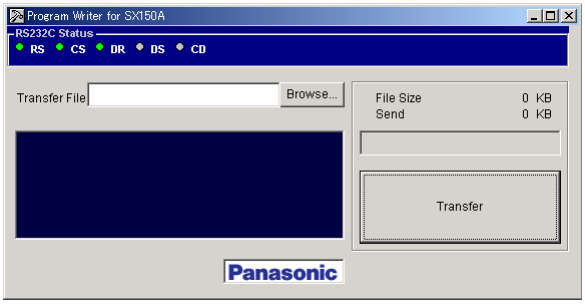
7. Set the mode selector as shown in the Firmware update mode window.




8. Turn on the unit again.

9. Click on the OK button. The unit will be set to the firmware update mode.

10. The Program Writer for SX150A window will be displayed.




When you power on the matrix switcher and the system becomes ready for update, the following message will appear on the PC screen.
"✻FIRMWARE UPLOAD START! WAIT…"

11. Wait until the following message appears.
"✻✻SDRAM INITIALIZE COMPLETED.START LOADING…"

12. Insert the supplied CD-ROM into the PC.

13. Click on the "Browse…" button to select a .mot file.
The file is located in the following directory.
E: \PWriter\sx150A_v✻✻✻✻✻.mot
(E is the CD-ROM drive and ✻ is the software version. For example, V111✻✻ means Version 1.11.)

14. Make sure that the new software version is displayed in the Transfer File box.

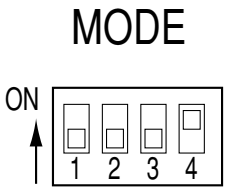
15. Press the Transfer button.

16. A message window will appear to ask you if it is OK to overwrite the software. After confirmation, click on "OK". The .mot file will be copied from the CD-ROM to the matrix switcher.
You can confirm the status by viewing messages.
(1) "✻✻✻LOAD OK…": The copy is finished.
(2) "✻✻✻✻NOW ERASING…": Data is being erased from the flash memory.
(3) "✻✻✻✻✻NOW WRITING…": New data is being written in the flash memory.
(4) "✻✻✻✻✻✻COMPLETED!!": The flash-memory writing is finished.

**Notes:**
- Copying takes approx. 7 minutes.
- Avoid disconnecting or powering off the PC and the matrix switcher. It may cause trouble.

17. After "✻✻✻✻✻✻COMPLETED!!" is displayed, power off the matrix switcher.

18. Set the mode selector of the matrix switcher as follows.




19. Display the matrix switcher's SETUP MENU. (Refer to the matrix switcher's operating instructions.)

20. Make sure that the version of the matrix switcher is displayed in SETUP MENU. That shows the software update has been successfully executed.

## ■ Error List

The following error messages are displayed through SX150 Program Writer.

### ● File Error




This error message is displayed during the following occasions.

- You have selected a wrong file (whose file extension is not ". mot") in Step 13 of p. 59.
- The ".mot" file is broken.

To solve this problem, select the correct file. (Refer to p. 59.)

### ● Not Ready




This error message is displayed when the matrix switcher's mode is not "SX150 SOFTWARE UPLOAD".
To solve this problem, do the following.

1. Power off the matrix switcher.
2. Set the mode selector of the matrix switcher to "SX150 SOFTWARE UPLOAD". (Refer to p. 24.)
3. Power on the matrix switcher again.

### ● Timeout Error

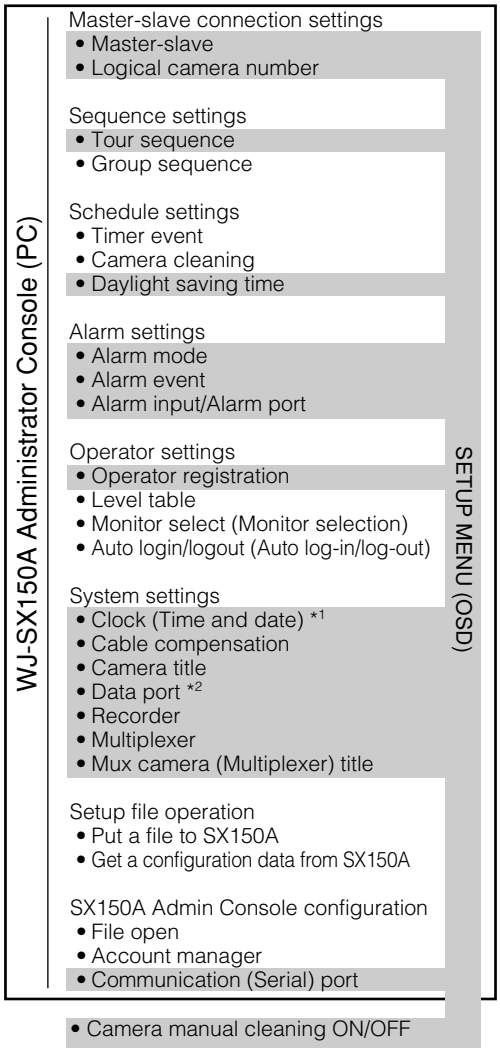



This error message is displayed when a specified time has passed since you started installing SX150A Program Writer/updating the firmware. The following are the timeout error statuses.

**Status 0:** 30 seconds has passed since the PC became idle.
**Status 1:** 30 seconds has passed since the SD-RAM started to be cleared.
**Status 3:** 20 minutes has passed since the file transfer was started.
**Status 4:** 30 seconds has passed since the file transfer was completed.
**Status 5:** 30 seconds has passed since the file loading became OK.
**Status 6:** 5 seconds has passed since the file erasing is started.
**Status 7:** 5 seconds has passed since the file writing is started.

## ■ Setup Procedures

This unit has two setting procedures.
The one is SETUP MENU, which is the unit's on-screen display (OSD).
The other is WJ-SX150A Administrator Console, which operates on the PC.




*1 WJ-SX150A Administrator Console can configure the display pattern.
*2 WJ-SX150A Administrator Console can configure the communication speed (baud rate) of the ports Data 1 to 4.

- SETUP MENU (OSD)

The basic functions, which are essential for the operation, are configurable. However, some items are not configurable. The settings about group sequences, operators and schedules, etc.

- WJ-SX150A Administrator Console (PC)

All the functions of this unit (except camera manual cleaning) are configurable. You need a PC to use WJ-SX150A Administrator Console.
Refer to p. 79 WJ-SX150A ADMINISTRATOR CONSOLE for details on the platform and installation.

**Notes:**

- The Master unit administrates all the system settings. Do the setup procedure with the Master unit only.
- To use WJ-SX150A Administrator Console, you need to prepare a PC and a 9-pin D-sub cable.(Refer to p. 48.)
- When changing the configuration of WJ-SX150A Administrator Console, configuration data getting and putting are necessary between the unit and PC to activate your configuration.

## ■ Description of Setup Procedures

This chapter describes about configurable items.

### ● Master-Slave Connection Settings

Both SETUP MENU and WJ-SX150 Administrator console can configure the parameters of master-slave connection and logical camera number.

- Master-slave: The composition of the master-slave connection is configurable.
- Logical camera number: Logical camera number, which is used for camera control and monitor display, can be assigned to each camera.

### ● Sequence Settings

SETUP MENU can configure tour sequences. WJ-SX150A Administrator Console can configure both of tour sequences and group sequences.

- Tour sequence: Up to 32 tour sequences are configurable (64 steps per tour).
- Group sequence: Tour sequences can be activated on up to 4 monitors simultaneously (1 tour sequence per monitor).

### ● Schedule Settings

SETUP MENU can configure daylight saving time. WJ-SX150A Administrator Console can configure timer event, camera cleaning, and daylight saving time.

- Timer event: A sequence or spot mode can be activated on the regular time of every month, week or day.
  Up to 50 timer events can be registered.
- Camera cleaning: Camera cleaning can be executed on the regular time of every month, week or day.
- Daylight saving time: Daylight saving time schedule for 20 years are configurable.

## ● Alarm Settings

The operation parameters when an alarm is input to the unit are configurable.

- Alarm mode: The operation mode activated along with an alarm input is configurable. Sequence mode or hold mode is selectable. Alarm mode can be set to OFF when not using it.
- Alarm event: The sequence number or spot camera is selectable for the alarm event.
- Alarm input (Alarm port): The alarm polarity (N. O. or N. C.) is assignable to each alarm input terminal.
- It is also selectable whether to activate the recording and sequence/spot image monitoring when an alarm signal is input to the unit. Alarm recording without the sequence/spot image monitoring is also available.

## ● Operator Settings

If you control this unit with a terminal-mode system controller, your operator information, controllable monitors and auto log-in/log-out will be registrable and configurable.

- Operator registration: Up to 16 operators are available. ID and password for operator identification are configurable. Level and priority can be assigned to each operator. Each camera's control coverage is also configurable.
- Level table: Restriction level for each password is customizable.
- Monitor select (Monitor selection): Controllable monitor can be assigned to each controller.
- Auto login/logout (Auto log-in/log-out): Auto log-in/log-out is configurable for each controller.

**Notes:**

- These settings (except Operator registration) are configurable only through WJ-SX150A Administrator Console. Operator registration is configurable through SETUP MENU and WJ-SX150A Administrator Console.
- When you control the unit with a PS·Data system controller, the above settings will be invalid. Refer to the system controller's operating instructions.

## ● System Settings

SETUP MENU can configure the clock (time and date), cable compensation and camera title.
Besides these settings, WJ-SX150A Administrator Console can select the data ports' baud rates.

- Clock (Time and date): The unit's time and date are configurable.
- Cable compensation: Cable compensation type is selectable depending on the distance between a camera and the unit. It is also possible to determine whether to send the VD2 timing pulse or control data with the camera output signals.
- Camera title: Camera title is configurable to identify the camera images on the monitor. WJ-SX150A Administrator Console can configure the camera title including original characters.
- Data port: Usually, the ports DATA 1 to 3 connect to the terminal-mode system controllers. RS-485 cameras will be connectable with the data port configurations through WJ-SX150A Administrator Console and SETUP MENU.
  When you use the system controllers via the PS·Data protocol, you need to configure the DATA 4 port setting through SX150A Admin Console or SETUP MENU.
- Recorder: The type and unit address of the recorder are configurable.
- Multiplxer: The parameters of the recorder mode are configurable. You can set the alarm and normal recording rate. You can also activate/deactivate dynamic recording, dummy black, and "CAMSW LOSS Rn" indication. (Rn is a recorder number.) MUX
- Mux camera (Multiplexer) title: Camera titles which are displayed with multiscreen segments are configurable. MUX

## ● Setup File Operation

WJ-SX150A Administrator Console can send a configuration file from the PC to this unit. The utility can also send the file from the unit to the PC for configuration.

- Put a file to SX150A: A configuration data is sent from the PC to the unit.
- Get a configuration data from SX150A: A configuration data is sent from the unit to the PC.
- Select setup data file: A configuration data is selected when sending it from the PC to the unit (or from the unit to the PC.)

**Note:** These settings are configurable only through WJ-SX150A Administrator Console.

## ● WJ-SX150A Administrator Console Configuration

The PC-related settings are configurable.

- Account Manager: WJ-SX150A Administrator Console operators are registrable and changeable.
- Communication (Serial) port: PC's usable communication port number and its baud rate (communication speed) are configurable.

# WJ-SX150A SETUP MENU (OSD)

The WJ-SX150A SETUP MENU (SETUP MENU) enables function controls that are not available by direct operation.
**Note:** Only one operator can enter SETUP MENU.

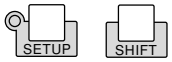
## ■ Displaying SETUP MENU

To display SETUP MENU, follow the procedure below.

1. Confirm that the camera and peripherals are correctly and securely connected and that all components are turned on.

2. To execute the selection, select one of the monitors (1 to 4) by pressing the numeric button, then press the MON (ESC) button.
   The MONITOR indicator will light up.

3. Press the SETUP button while holding down the SHIFT button on the system controller.
   WJ-SX150A SETUP MENU will appear on the active monitor as shown below, and the system controller's SETUP indicator will light up.
   The tree of SETUP MENU is shown in the next page.
   **Note:** "x.xx" in SETUP MENU shows the firmware version.




* This is the factory default setting.

```
WJ-SX150A SETUP MENU                    x.xx

 100 TIME&DATE      Aug/21/2002 10:55 AM
 200 D.S.T.         ON

 300 SEQUENCE"↓
 400 ALARM"↓
 500 CAMERA TITLE"↓
 600 RECORDER"↓
 700 SYSTEM"↓
 800 OPERATOR REGISTRATION"↓

 900 MULTIPLEXER"↓
1000 MUX CAMERA TITLE"↓
```

The following functions and buttons are valid in SETUP MENU:

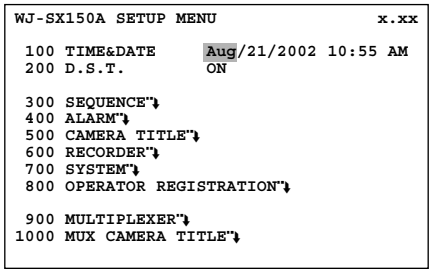
**Joystick to UP(▲):** Moves the cursor up or returns to the previous page.
**Joystick to DOWN(▼):** Moves the cursor down or displays the next page.
**Joystick to L(◄):** Moves the cursor to the left.
**Joystick to R (►):** Moves the cursor to the right.
**PREV button:** Selects the previous mode or parameter.
**NEXT button:** Selects the next mode or parameter.
**Numeric buttons:** Enters numerals.
**CLEAR button:** Deletes a character when editing a camera title.
**CAM (SET) button:** Executes the selections and displays a submenu for items with the ("↓) mark.
**MON (ESC) button:** Returns to SETUP MENU or the previous menu.
This operating instructions uses the symbols to describe the buttons.

4. To end the setting and return to the normal view, press the SETUP button while holding down the SHIFT button when SETUP MENU is displayed.
   The system controller's SETUP indicator will go off.

## ■ Programming SETUP MENU

As shown in the tree, SETUP MENU has 10 submenus: TIME & DATE, D. S. T., SEQUENCE, ALARM, CAMERA TITLE, RECORDER, SYSTEM, OPERATOR REGISTRATION, MULTIPLEXER, and MUX CAMERA TITLE. The submenus except TIME & DATE and D. S. T. are divided into additional submenus.
The ("↓) mark indicates that the item has a submenu for more detailed setups.
Refer to the figure in p. 65 for the composition of SETUP MENU.

# ■ TIME & DATE




## ● How to Display

To display this menu on the monitor, move the cursor to 100 TIME & DATE in SETUP MENU by moving the joystick to ▲ or ▼.

## ● Parameters

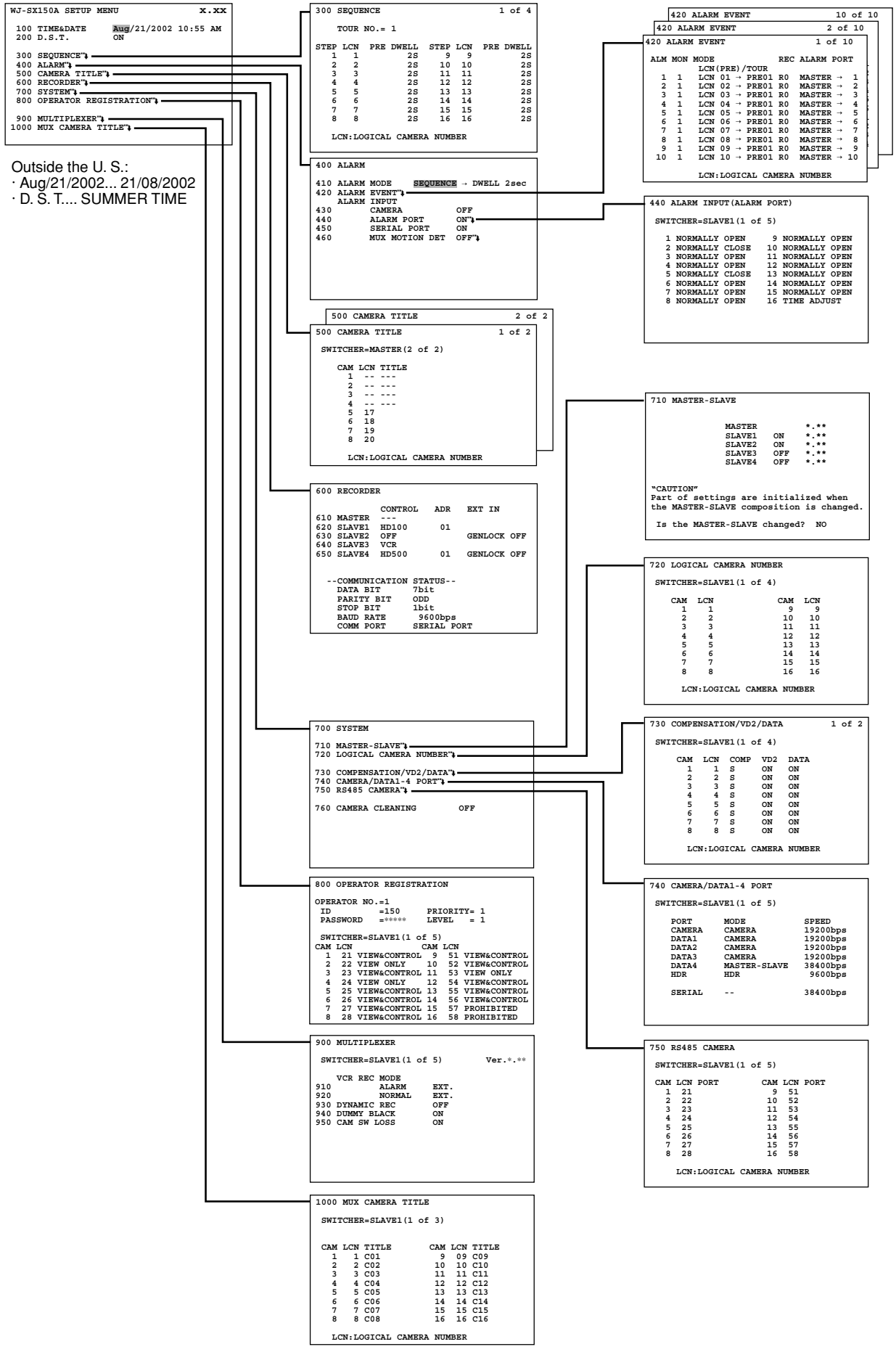
You can move the cursor to each parameter by moving the joystick to ◄ or ►.

### • Month

Press the NEXT or PREV button to select the correct month.

### • Day

Press the numeric buttons to enter it directly.




Depending on the composition of master-slave connection, parameters will differ from the illustration.

**• Year**

Press the numeric button to enter the correct year.

**• TIME**

Press the numeric button to enter the correct time.

**• MINUTE**

Press the numeric button to enter the correct minute.

**• AM/PM**

Press the NEXT or PREV button to select the correct time.
After the configuration, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

**Notes:**

- Adjust the time and date when the clock display is different from the current one.
- The clock display pattern is changeable with the setting in WJ-SX150A Administrator Console. (Refer to p. 93.) The factory default setting is Month/Day/Year.
- The clock is automatically adjusted to 0 second of the setting time and date when closing SETUP MENU.
- Hour system (12- hours or 24- hours) is changeable through WJ-SX150A Administrator Console.

## ■ D. S. T. (Daylight Saving Time)

```
WJ-SX150A SETUP MENU                    x.xx

 100 TIME&DATE      Aug/21/2002 10:55 AM
 200 D.S.T.         ON

 300 SEQUENCE"↓
 400 ALARM"↓
 500 CAMERA TITLE"↓
 600 RECORDER"↓
 700 SYSTEM"↓
 800 OPERATOR REGISTRATION"↓

 900 MULTIPLEXER"↓
1000 MUX CAMERA TITLE"↓
```

### ● How to Display

To display this menu on the monitor, move the cursor to 200 D. S. T. in SETUP MENU by moving the joystick to ▼ or ▲.

### ● Parameters

Select ON or OFF by pressing the NEXT or PREV buttons.

**ON:** Daylight saving time is activated.
**OFF:** Daylight saving time is deactivated.

The factory default setting is ON.

After the configuration, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

**Notes:**

- The start/end date are configurable through WJ-SX150A Administrator Console. (Refer to p. 87.)
- When ON is selected for D. S. T., ∗ is added beside the time display.
  **Example:** ∗10: 55 AM

## ■ SEQUENCE SETUP

```
300 SEQUENCE                            1 of 4

    TOUR NO.= 1

STEP LCN  PRE DWELL  STEP LCN  PRE DWELL
   1   1         2S     9   9         2S
   2   2         2S    10  10         2S
   3   3         2S    11  11         2S
   4   4         2S    12  12         2S
   5   5         2S    13  13         2S
   6   6         2S    14  14         2S
   7   7         2S    15  15         2S
   8   8         2S    16  16         2S

   LCN:LOGICAL CAMERA NUMBER
```

```
300 SEQUENCE                            2 of 4

    TOUR NO.= 1

STEP LCN  PRE DWELL  STEP LCN  PRE DWELL
  17                   25
  18                   26
  19                   27
  20                   28
  21                   29
  22                   30
  23                   31
  24                   32

  LCN:LOGICAL CAMERA NUMBER
```

```
300 SEQUENCE                            3 of 4

    TOUR NO.= 1

STEP LCN  PRE DWELL  STEP LCN  PRE DWELL
  33                   41
  34                   42
  35                   43
  36                   44
  37                   45
  38                   46
  39                   47
  40                   48

  LCN:LOGICAL CAMERA NUMBER
```

```
300 SEQUENCE                            4 of 4

    TOUR NO = 1

STEP LCN  PRE DWELL  STEP LCN  PRE DWELL
  49                   57
  50                   58
  51                   59
  52                   60
  53                   61
  54                   62
  55                   63
  56                   64

  LCN:LOGICAL CAMERA NUMBER
```

### ● How to Display

To display this menu on the monitor, move the cursor to 300 SEQUENCE in SETUP MENU by moving the joystick to ▼ or ▲.
Then, press the CAM (SET) button. The submenu appears on the monitor.

## ● Parameters

Move the joystick to move the cursor.
Press the NEXT or PREV button to select the desired parameters.
Press the numeric button(s) to enter a number.

**TOUR NO:** Press the NEXT or PREV button to select the tour number. Or press the numeric button(s) to enter a number.
**STEP:** This stands for a tour sequence step.
**LCN:** This stands for a logical camera number. 01 to 99 or "- -" is selectable. * To deactivate a sequence step, select "- -". You can set "- -" by pressing the button 0.
The factory default setting is assigned to each step in numerical order (STEP 1 = LCN 1, STEP 2 = LCN 2, STEP 3 = LCN 3, STEP 4 = LCN 4, STEP 5 = LCN 5…)
**PRE:** This stands for a camera's preset position number. 1 to 64 or "- -" is selectable. When the camera has no preset position, select "- -". You can set "- -" by pressing the button 0.
The factory default setting is "- -".
**DWELL:** This stands for the dwell time. 1 second to 30 seconds is selectable. To delete the sequence step, select "- -". You can set "- -" by pressing the button 0.
The factory default setting is 2S for each step.

After the configuration, press the MON (ESC) button. The monitor display will return to the previous menu.

After all the configurations, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

**Notes:**
- A preset position number is available only when a combination camera is selected for CAM.
- The available preset position numbers differ among cameras. Refer to each camera's operating instructions.

# ■ ALARM SETUP

```
400 ALARM

410 ALARM MODE     SEQUENCE → DWELL 2sec
420 ALARM EVENT↓
    ALARM INPUT
430         CAMERA           OFF
440         ALARM PORT       ON"↓
450         SERIAL PORT      ON
460         MUX MOTION DET   OFF"↓
```

## ● How to Display

To display this menu on the monitor, move the cursor to 400 ALARM in SETUP MENU by moving the joystick to ▼ or ▲. Then, press the CAM (SET) button. The submenu appears on the monitor.

## ● Parameters

Move the joystick to move the cursor.
Press the NEXT or PREV button to select the desired parameters.
Press the numeric button(s) to enter a number.

### • ALARM MODE

You can select an operation mode when alarm input signals are accepted by the unit.

**Notes:**
- The alarm mode is activated when alarm input signals are assigned to the same monitor through 420 ALARM EVENT or the Alarm Event (refer to pp. 67 and 68/ pp. 89 and 90) window.
- While alarm is activated, you cannot operate the functions related to the Multiplexer board.

**SEQUENCE:** An alarm operation is replaced by another one after the dwell time (DWELL) ends.
**HOLD:** An initial alarm operation is continued even after another alarm input is accepted.
**OFF:** Select this when not using the alarm mode.

The factory default setting is SEQUENCE.

### • DWELL

This stands for the dwell time of a sequence during an alarm mode.
1 to 30 seconds are selectable.

The factory default setting is 2 seconds.

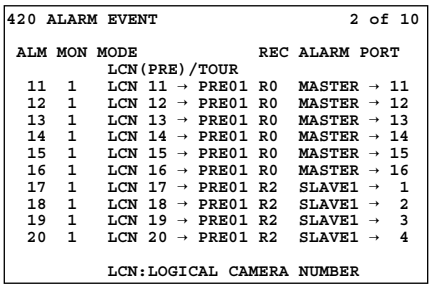
### • ALARM EVENT

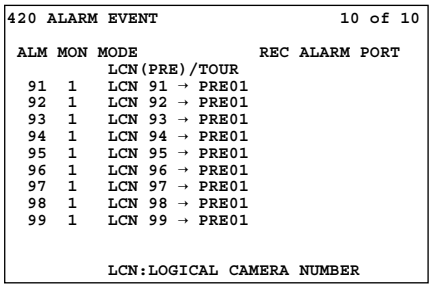
This item is configurable in 420 ALARM EVENT.
Move the cursor and press the CAM (SET) button.
420 ALARM EVENT will appear on the monitor.

```
420 ALARM EVENT                          1 of 10

 ALM MON MODE              REC ALARM PORT
         LCN(PRE)/TOUR
   1   1   LCN 01 → PRE01 R0   MASTER →  1
   2   1   LCN 02 → PRE01 R0   MASTER →  2
   3   1   LCN 03 → PRE01 R0   MASTER →  3
   4   1   LCN 04 → PRE01 R0   MASTER →  4
   5   1   LCN 05 → PRE01 R0   MASTER →  5
   6   1   LCN 06 → PRE01 R0   MASTER →  6
   7   1   LCN 07 → PRE01 R0   MASTER →  7
   8   1   LCN 08 → PRE01 R0   MASTER →  8
   9   1   LCN 09 → PRE01 R0   MASTER →  9
  10   1   LCN 10 → PRE01 R0   MASTER → 10

           LCN:LOGICAL CAMERA NUMBER
```




**ALM:** This stands for the alarm event number.

**MON:** This stands for the monitor number.

**MODE:** This stands for the preset position of a camera or tour sequence number activated with an alarm input signal.

- LCN(PRE)/TOUR: Activates a spot camera or tour sequence with an alarm input. To activate a spot camera, select LCN nn (nn is a logical camera number: 01 to 99). To activate a tour sequence, select TUR nn (nn is a tour number: 01 to 32).
  When you selected a combination camera for LCN nn, enter the desired preset position number. PRE 01 to 64 is available. When you selected another type of camera, select "-".

**REC:** This stands for a recorder activated with an alarm input signal. If no recorder is activated, the parameter will be a space. The REC area displays the number of recorder which receives images from a camera whose logical camera number is correspondent with the alarm event number.
R0 to R4 shows the following.

| Recorder number | Recorder |
|---|---|
| R0 | Master recorder |
| R1 | Slave 1 recorder |
| R2 | Slave 2 recorder |
| R3 | Slave 3 recorder |
| R4 | Slave 4 recorder |

**Note:** If a WJ-HD200 Series recorder is connected to CAM 1 to 8, recorder number will be displayed even camera channels (CAM 9 to 16) not connected to the recorder.

**ALARM PORT:** When an alarm port pin set here receives an input signal, the designated event is activated. MASTER, SLAVE 1 to 4 is available for the matrix switcher. 1 to 16 is available for the alarm port number. To deactivate the alarm number, press the button 0. ALARM PORT will be a space.

The factory default setting is same as the illustrations.

**Notes:**

- MODE and LCN(PRE/TOUR) cannot be selected by pressing the numeric buttons. Press the NEXT or PREV button for selection.
- PRE doesn't appear when TOUR 1 to 16 is selected for MODE.
- When selecting a camera without the preset position function, select "- -" for PRE.
- When moving the joystick to ▼ at the bottom of ALARM EVENT 1 of 10, the monitor will display 2 of 10 (the next page).
- When moving the joystick to ▲ at the top of ALARM EVENT 2 of 10, the monitor will display 1 of 10 (the previous page).
- Each ALARM PORT can be assigned to only one alarm number. If you enter the same ALARM PORT more than one time, the newer will be activated and the older will be changed to a space.
- An alarm event will be activated even if the selected logical camera number is not assigned to any camera channel.
  In this case, black image and "NOT ASSIGN" will be displayed on the monitor.
- Set the parameter of a port number area by pressing the numeric button(s).
- If you press the NEXT or PREV button at a port pin number area, the parameter will be switched among a space and ALARM PORT not assigned to other alarm events.

After the configuration, press the MON (ESC) button. The monitor display returns to ALARM SETUP.

## • ALARM INPUT

### 430 CAMERA

This stands for that an alarm input is accepted via the CAMERA IN connectors or the RS-485 ports.

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

**REC ONLY:** Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Note:** You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

**OFF:** An alarm input is accepted neither via the CAMERA IN connectors nor the RS-485 ports.

The factory default setting is OFF.

### 440 ALARM PORT

This stands for that an alarm input is accepted via the ALARM port (25-pin D-sub connector at the rear panel).

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit.)

**REC ONLY:** Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Note:** You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

**OFF:** An alarm input is not accepted via the ALARM port.

The factory default setting is ON.

Each alarm input's polarity is configurable in the submenu.
Set ALARM PORT to ON or REC ONLY, and press the CAM (SET) button.
440 ALARM INPUT (ALARM PORT) will appear on the monitor.

```
440 ALARM INPUT(ALARM PORT)

 SWITCHER=SLAVE1(1 of 5)

   1 NORMALLY OPEN      9 NORMALLY OPEN
   2 NORMALLY CLOSE    10 NORMALLY OPEN
   3 NORMALLY OPEN     11 NORMALLY OPEN
   4 NORMALLY OPEN     12 NORMALLY OPEN
   5 NORMALLY CLOSE    13 NORMALLY OPEN
   6 NORMALLY OPEN     14 NORMALLY OPEN
   7 NORMALLY OPEN     15 NORMALLY OPEN
   8 NORMALLY OPEN     16 TIME ADJUST
```

Move the cursor and press the CAM (SET) button to go into the menu.

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters.

* In normal connection, only MASTER is displayed.

After designating the unit, select the desired polarity for ALARM 1 to 16.

**NORMALLY OPEN:** Normally Open contact is activated for the alarm input signal.

**NORMALLY CLOSE:** Normally Close contact is activated for the alarm input signal.

**TIME ADJUST:** This polarity enables the input of the time adjusting signal.

The factory default setting is N. O.

**Note:** In the master-slave connection, time setting of every unit can be synchronized when the time adjusting signal is input to any unit.

**450 SERIAL PORT**

This stands for that an alarm input is accepted via the SERIAL port.

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit.)

**REC ONLY:** Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Note:** You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

**OFF:** An alarm input is not accepted via the SERIAL port.

The factory default setting is ON.

**460 MUX MOTION DET** MUX

This stands for that the unit's motion detector is activated when a camera detects the brightness-level change and transmit an alarm signal.

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit.)

**REC ONLY:** Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Notes:**

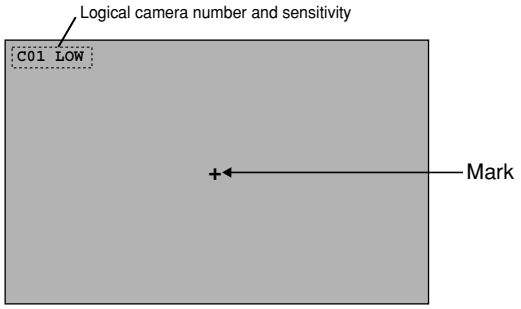
- If the Multiplexer board is not installed in the unit, you cannot enter the submenu of 460 MUX MOTION DET.
- You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

**OFF:** An alarm input is not accepted by the motion detector.

To configure where to activate the motion detector, set MUX MOTION DET to ON or REC ONLY, and press the CAM (SET) button. The live image will be displayed.
Up to 4 motion-detection areas are configured for each camera channel.

**Note:** Black image will be displayed on the monitor if the currently selected channel has no camera connection.

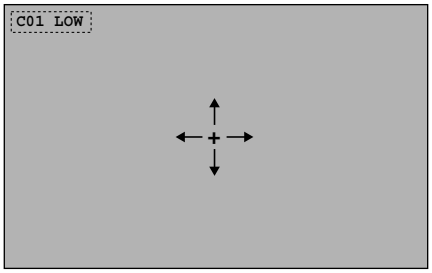
A "+" mark appears at the center of the monitor.

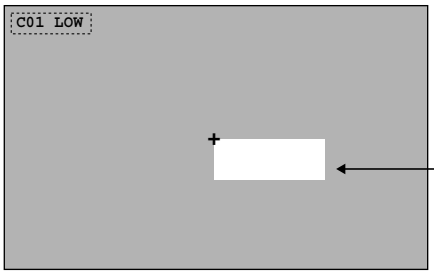



The following is the setting procedure.

1. Move the cursor with the joystick to the desired area, and then press the CAM (SET) key. Setting point 1 is determined.

   **Note:** If you control the joystick while holding down the SHIFT button, the cursor will move by 10 steps.

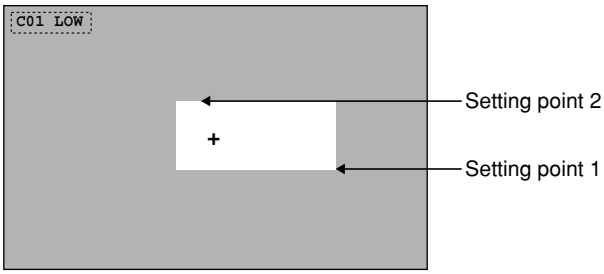



   Logical camera number and sensitivity level will move when a cursor points here. (The default position is here.)

2. Move the "+" mark to the desired area, and then press the CAM (SET) key. Setting point 2 is determined and the "+" mark will disappear. Then, the mark will appear again at the center of the monitor. The square, covered with Setting point 1 and 2, is showing the motion-detection area.

**Note:** White images will be displayed in the square if the currently selected channel has no camera connection.




3. To configure more motion-detection area, repeat Step 1 and 2.

4. To set the motion-detection area of another camera, press the NEXT or PREV button. Then, select the desired logical camera number. The live image of the selected camera will be displayed.

**Notes:**

- If you repeat Step 1 after setting 4 motion-detection areas, "NG" will blink at the center of the monitor for two seconds.
- To reset a motion-detection area, move the "+" mark on the desired area. Then, press the CLEAR button. The area will be reset.
- If an area overlaps another one, the newer area will be reset.

5. To configure the motion-detection areas of another camera channel, press the NEXT or PREV button.

6. Repeat Step 1 to 4.

**Notes:**

- If you press the CLEAR button while holding down the SHIFT button, all the motion-detection areas of the camera channel will be cleared.
- Depending on the sensitivity level, a motion-detection area needs the following area sizes.

| Sensitivity | Area size |
|---|---|
| LOW | 17 x 17 steps or more |
| MID | 12 x 12 steps or more |
| HIGH | 5 x 5 steps or more |

You can change the sensitivity level in WJ-SX150A Administrator Console (Refer to p. 89.) The factory default setting is LOW.

After the configuration, press the MON (ESC) button. The motion-detection setting will be memorized and the monitor display will return to the previous menu.

After all the configurations, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

# ■ CAMERA TITLE

```
500 CAMERA TITLE                    1 of 2

 SWITCHER=MASTER(2 of 2)

    CAM LCN TITLE
      1  -- ---
      2  -- ---
      3  -- ---
      4  -- ---
      5  17
      6  18
      7  19
      8  20

       LCN:LOGICAL CAMERA NUMBER
```

```
500 CAMERA TITLE                    2 of 2

 SWITCHER=MASTER(2 of 2)

    CAM LCN TITLE
      9  21
     10  22
     11  23
     12  24
     13  25
     14  26
     15  27
     16  28

      LCN:LOGICAL CAMERA NUMBER
```

## ● How to Display

To display this menu on the monitor, move the cursor to 500 CAMERA TITLE in SETUP MENU by moving the joystick to ▼ or ▲. Then, press the CAM (SET) button. The submenu appears on the monitor.

## ● How to edit

Move the joystick to move the cursor.
To select parameters, press the PREV or NEXT button.

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters.

* In normal connection, only MASTER is displayed.

**CAM:** This stands for a camera channel of the unit.

**LCN:** This stands for a logical camera number. 1 to 99 is selectable.

**TITLE:** A camera title is composed of up to 20 characters. Each camera number is fixed and the subsequent 20 characters are editable.

The characters available here are the following:
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789!"#$%&'()*+,-./:;=?•_(space)

The factory default settings are same as the illustrations.

1. Edit the camera titles by pressing the NEXT or PREV buttons.
   The NEXT button toggles these characters in this order.
   The PREV button toggles these characters in a reverse order.
   Joystick and the CLEAR button are also usable for the edit. (Refer to p. 63 Displaying SETUP MENU for each use.)
2. After the configuration, press the MON (ESC) button. The monitor display will return to the previous menu.

After all the configurations, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

**Notes:**

- When moving the joystick to ▼ at the bottom of CAMERA TITLE 1 of 2, the monitor will display 2 of 2 (the next page).
- When moving the joystick to ▲ at the top of CAMERA TITLE 2 of 2, the monitor will display 1 of 2 (the previous page).
- Original characters are configurable through WJ-SX150A Administrator Console, but they are not displayed correctly in SETUP MENU. They are displayed as ■. (Refer to p. 95 Edit Font window.)
- The titles of the camera channels deactivated by the master-slave connection are displayed as "- - -".

# ■ RECORDER

```
600 RECORDER

            CONTROL   ADR   EXT IN
610 MASTER  ---
620 SLAVE1  HD100      01
630 SLAVE2  OFF              GENLOCK OFF
640 SLAVE3  VCR
650 SLAVE4  HD500      01    GENLOCK OFF


  --COMMUNICATION STATUS--
    DATA BIT      7bit
    PARITY BIT    ODD
    STOP BIT      1bit
    BAUD RATE      9600bps
    COMM PORT     SERIAL PORT
```

## ● How to Display

To display this menu on the monitor, move the cursor to 600 RECORDER in SETUP MENU by moving the joystick to ▲ or ▼. Then, press the CAM (SET) button. The submenu will appear on the monitor.

## ● Parameters

Move the joystick to move the cursor.
Press the NEXT or PREV button to select the desired parameters.
Press the numeric button(s) to enter a number.

### • 610 MASTER/620 SLAVE1/630 SLAVE 2/640 SLAVE 3/650 SLAVE 4

This stands for the type of units connected in the system.

**CONTROL:** This stands for the recorder connected to each unit. The selectable parameters will differ depending on whether a Multiplexer board is installed in the unit.

**Without the Multiplexer board**

**HD500:** Select this when a WJ-HD500 Series recorder is connected to the unit.

**HD200:** Select this when a WJ-HD200 Series recorder is connected to the unit.

**OFF:** Select this when no recorder is connected to the unit.

The factory default setting is HD500.

**With the Multiplexer board**

**VCR:** Select this when a time-lapse VCR (Panasonic model) is connected to the unit.

**HD100:** Select this when a WJ-HD100 Series recorder is connected to the unit.

**OFF:** Select this when a time-lapse VCR (non-Panasonic model) or no recorder is connected.

The factory default setting is OFF.

**Notes:**

- If HD500 or HD200 is selected for the unit with the Multiplexer board, the parameter will be set to OFF.
- If VCR or HD100 is selected for the unit without the Multiplexer board, the parameter will be set to HD500.

**ADR:** This stands for the recorder's unit address. When a digital disk recorder is connected to the unit, 1 to 99 is available. When a time-lapse VCR is connected, this parameter is not displayed.

**EXT IN:**

This stands for the setting of the EXT IN connector at the unit's rear panel. When the Multiplexer board is installed in the Master unit, this parameter for MASTER does not appear.

**GENLOCK ON:** Select this mode if you gen-lock the unit with an external device.

**GENLOCK OFF:** Select this mode if you connect the video output connector of the recorder to the EXT IN connector of the unit.

The factory default setting is OFF.

The factory default setting is same as the illustration.

### • COMMUNICATION STATUS

The following are communication parameters of a digital disk recorder/time-lapse VCR. The parameters will differ depending on connected devices.

**When a digital disk recorder is connected**

**DATA BIT:** 8 bit
**PARITY BIT:** NONE
**STOP BIT:** 1 bit
**BAUD RATE:** 9600 bps
**COMM PORT:** DATA HDR PORT

**When a time-lapse VCR is connected**

**DATA BIT:** 7 bit
**PARITY BIT:** ODD
**STOP BIT:** 1 bit
**BAUD RATE:** 9600 bps
**COMM PORT:** SERIAL PORT

**Notes:**

- 620 SLAVE1, 630 SLAVE 2, 640 SLAVE 3, and 650 SLAVE 4 appear only when they are connected.
- When Slave 1 to 4 are connected in the system, "---" is displayed for CONTROL of 610 MASTER.
- If GENLOCK ON is selected, the playback images or multiscreen display cannot be displayed on Monitor 1 to 4. Confirm the images on the monitor which are connected to the recorder.
- If GENLOCK OFF is selected, the maximum rate recording becomes unavailable (when a WJ-HD500 Series recorder is connected to the unit).
- Gen-lock is not activated for the Slave 1 to 4 units when the Multiplexer board is installed in them.

## ■ SYSTEM SETUP

```
700 SYSTEM

710 MASTER-SLAVE"↓
720 LOGICAL CAMERA NUMBER"↓

730 COMPENSATION/VD2/DATA"↓
740 CAMERA/DATA1-4 PORT"↓
750 RS485 CAMERA"↓

760 CAMERA CLEANING         OFF
```

### ● How to Display

To display this menu on the monitor, move the cursor to 700 SYSTEM in SETUP MENU by moving the joystick to ▼ or ▲. Then, press the CAM (SET) button. The submenu appears on the monitor.

### ● Parameters

Move the joystick to move the cursor.
Press the NEXT or PREV button to select the desired parameters.

### • MASTER-SLAVE

This menu links to the submenu.
Move the cursor and press the CAM (SET) button to go into the menu.
710 MASTER-SLAVE will appear on the monitor.

```
710 MASTER-SLAVE


              MASTER          *.**
              SLAVE1   ON     *.**
              SLAVE2   ON     *.**
              SLAVE3   OFF    *.**
              SLAVE4   OFF    *.**


"CAUTION"
Part of settings are initialized when
the MASTER-SLAVE composition is changed.

 Is the MASTER-SLAVE changed?  NO
```

**SLAVE 1 to 4**

**ON:** Select this for units connected in the system.

**OFF:** Select this for units not connected in the system.

The factory default setting is OFF.

**Notes:**

- For Slave units, you can set ON only when the unit with the previous number is set to ON.
- When you change ON/OFF, part of the setting data will be initialized according to the master-slave composition
- *. ** is the firmware version of a unit. (For Slave units, the version is displayed only when ON is selected.)

**Is the MASTER-SLAVE changed?**

**YES:** Select this if you agree that the master-slave composition will be changed.

**NO:** Select this if you do not agree that the master-slave composition will be changed.

This message appears only when you try to change ON/OFF of SLAVE1 to 4.

- To change the setting, select "YES" and press the SET button. SETUP MENU will be closed, but the setting will be activated.
- To cancel the setting, select "NO". The message will disappear and the cursor moves to the former position.

After the configuration, press the MON (ESC) button. The monitor display returns to the previous menu.

## • LOGICAL CAMERA NUMBER

This menu links to the submenu.

Move the cursor and press the CAM (SET) button to go into the menu. 720 LOGICAL CAMERA NUMBER will appear on the monitor.

```
720 LOGICAL CAMERA NUMBER

 SWITCHER=SLAVE1(1 of 4)

    CAM  LCN             CAM  LCN
      1    1               9    9
      2    2              10   10
      3    3              11   11
      4    4              12   12
      5    5              13   13
      6    6              14   14
      7    7              15   15
      8    8              16   16

     LCN:LOGICAL CAMERA NUMBER
```

```
720 LOGICAL CAMERA NUMBER

 SWITCHER=SLAVE2(2 of 4)

    CAM  LCN             CAM  LCN
      1   17               9   25
      2   18              10   26
      3   19              11   27
      4   20              12   28
      5   21              13   29
      6   22              14   30
      7   23              15   31
      8   24              16   32

     LCN:LOGICAL CAMERA NUMBER
```

```
720 LOGICAL CAMERA NUMBER

 SWITCHER=SLAVE3(3 of 4)

    CAM  LCN             CAM  LCN
      1   33               9   41
      2   34              10   42
      3   35              11   43
      4   36              12   44
      5   37              13   45
      6   38              14   46
      7   39              15   47
      8   40              16   48

     LCN:LOGICAL CAMERA NUMBER
```

```
720 LOGICAL CAMERA NUMBER

 SWITCHER=MASTER(4 of 4)

    CAM  LCN             CAM  LCN
      1   --               9   --
      2   --              10   --
      3   --              11   --
      4   --              12   --
      5   --              13   49
      6   --              14   50
      7   --              15   51
      8   --              16   52

     LCN:LOGICAL CAMERA NUMBER
```

Move the joystick to move the cursor.

To select parameters, press the PREV or NEXT button.

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters

* In normal connection, only MASTER is displayed.

**CAM:** This stands for a camera channel of the unit.

**LCN:** This stands for a logical camera number. 1 to 99 is selectable.

The factory default settings are shown in the diagrams.

**When only Master is connected**

| CAM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Master | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

**When Master and Slave 1 are connected**

| CAM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slave 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Master | - - | - - | - - | - - | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |

**When Master, Slave 1 and 2 are connected**

| CAM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slave 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Slave 1 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| Master | - - | - - | - - | - - | - - | - - | - - | - - | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

**When Master, Slave 1 to 3 are connected**

| CAM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slave 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Slave 2 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| Slave 3 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| Master | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | 49 | 50 | 51 | 52 |

**When Master, Slave 1 to 4 are connected**

| CAM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slave 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Slave 2 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| Slave 3 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| Slave 4 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
| Master | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |

**Notes:**

- When you select logical camera numbers, the setting will be automatically activated in other menus.
- Camera channels of the Master unit which connect Slave units are displayed as a space. You cannot configure the parameters.
- You can select a logical camera number for only one channel. When you enter the same number second time, the newer is activated, but the older will be changed to a space.

## • COMPENSATION/VD2/DATA

This menu links to the submenu.
Move the cursor and press the CAM (SET) button to go into the menu.
730 COMPENSATION/VD2/DATA will appear on the monitor.

```
730 COMPENSATION/VD2/DATA          1 of 2

 SWITCHER=SLAVE1(1 of 4)

     CAM  LCN  COMP  VD2  DATA
       1    1  S     ON   ON
       2    2  S     ON   ON
       3    3  S     ON   ON
       4    4  S     ON   ON
       5    5  S     ON   ON
       6    6  S     ON   ON
       7    7  S     ON   ON
       8    8  S     ON   ON

        LCN:LOGICAL CAMERA NUMBER
```

```
730 COMPENSATION/VD2/DATA          2 of 2

 SWITCHER=SLAVE1(1 of 4)

     CAM  LCN  COMP  VD2  DATA
       9    9  S     ON   ON
      10   10  S     ON   ON
      11   11  S     ON   ON
      12   12  S     ON   ON
      13   13  S     ON   ON
      14   14  S     ON   ON
      15   15  S     ON   ON
      16   16  S     ON   ON

        LCN:LOGICAL CAMERA NUMBER
```

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters.
* In normal connection, only MASTER is displayed.
**CAM:** This stands for a camera channel of the unit.
**LCN:** This stands for a logical camera number. 1 to 99 is selectable.
**COMP:** This stands for cable compensation. Select the desired setting according to the cable length.

**S:** Less than 400 m (1 300 ft)
**M:** 400 m (1 300 ft) to 700 m (2 300 ft)
**L:** 700 m (2 300 ft) to 900 m (3 000 ft)

Refer to p. 36 for available cables.
The factory default setting is S.

**VD2:** To send the VD2 timing pulse with the camera output signal, select ON. Not to send the VD2 timing pulse with the camera output signal, select OFF. The factory default setting is ON.
**DATA:** To send the control data with the camera output signal, select ON. Not to send the control data with the camera output signal, select OFF. The factory default setting is ON.

* The available camera numbers will differ depending on the total number of matrix switchers.

**Notes:**

- When moving the joystick to ▼ at the bottom of COMPENSATION/VD2/DATA, the monitor will display 2 of 2.
- When moving the joystick to ▲ at the bottom of COMPENSATION/VD2/DATA, the monitor will display 1 of 2.
- Camera channels of the Master unit which connect Slave units are displayed as a space. You cannot configure the parameters.

## • CAMERA/DATA1 – 4 PORT

This menu links to the submenu.
Move the cursor and press the CAM (SET) button to go into the menu.
740 CAMERA/DATA1-4 PORT will appear on the monitor.

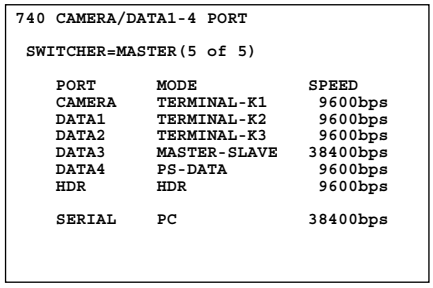
```
740 CAMERA/DATA1-4 PORT

 SWITCHER=MASTER(1 of 1)

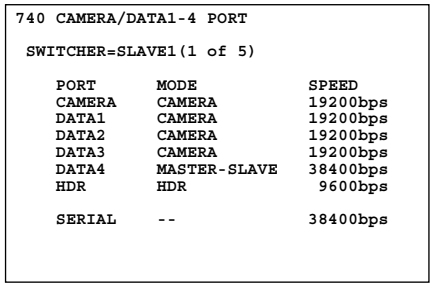
    PORT       MODE             SPEED
    CAMERA     CAMERA           19200bps
    DATA1      TERMINAL-K1       9600bps
    DATA2      TERMINAL-K2       9600bps
    DATA3      TERMINAL-K3       9600bps
    DATA4      PS-DATA           9600bps
    HDR        HDR               9600bps

    SERIAL     PC               38400bps
```

Setting for normal connection




Master unit setting for Master-Slave connection




Slave unit setting for Master-Slave connection

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters.

* In normal connection, only MASTER is displayed.

The factory default setting is same as the illustration.

**PORT:** This stands for the type of a port.

**CAMERA:** RS-485 Camera port

**DATA 1/2/3/4:** DATA 1/2/3/4 ports

**HDR:** DATA HDR port

**SERIAL:** SERIAL port

**MODE:** This stands for the operation mode of a port.

**CAMERA:** Select this if a camera is connected.

**TERMINAL-K1/K2/K3/K4:** Select this if a terminal-mode system controller is connected.

**PS·DATA:** Select this if a PS·DATA system controller is connected.

**MASTER-SLAVE:** The port used for the master-slave connection is fixed to this parameter.

**HDR:** The HDR port is fixed to this parameter.

**PC:** WJ-SX150A Administrator Console configuration and firmware update becomes available with a PC connection.

**VCR:** Select this if a time-lapse VCR (Panasonic model) is connected.

**– – –:** This port is unusable.

The following are MODE parameters assigned to each port.

| Port | Master | | Slave 1 to 4 |
|---|---|---|---|
| | Normal connection | Master-slave connection | |
| CAMERA | CAMERA | TERMINAL-K1/K2/ K3/K4 CAMERA | CAMERA |
| DATA 1 | TERMINAL-K1/K2/ K3/K4 CAMERA | TERMINAL-K1/K2/ K3/K4 CAMERA | CAMERA |
| DATA 2 | TERMINAL-K1/K2/ K3/K4 CAMERA | TERMINAL-K1/K2/ K3/K4 CAMERA | CAMERA |
| DATA 3 | TERMINAL-K1/K2/ K3/K4 CAMERA | MASTER-SLAVE | CAMERA |
| DATA 4 | TERMINAL-K1/K2/ K3/K4 PS·DATA | TERMINAL-K1/K2/ K3/K4 PS·DATA | MASTER-SLAVE |
| HDR | HDR | HDR | HDR |
| SERIAL | PC<br>VCR | PC<br>VCR | – – –<br>VCR |

The factory default setting is same as the illustration.

**SPEED:** This stands for the communication speed of a port.

**38400 bps*:** Select this to set the speed to 38400 bps.

**19200 bps:** Select this to set the speed to 19200 bps.

**9600 bps:** Select this to set the speed to 9600 bps.

**4800 bps:** Select this to set the speed to 4800 bps.

* This parameter is available only for SERIAL.

The factory default setting is same as the illustration.

**Notes:**

- If the DATA 4 is set to PS·DATA, SPEED of PS·DATA will be changed in conjunction with that of HDR.
- When you change MODE, the default communication speed is automatically set. The SERIAL port is set to the default speed when CONTROL is changed in 600 RECORDER. (Refer to p. 71.)

The default communication speeds are shown in the diagram.

| MODE | Factory default setting |
|---|---|
| CAMERA | 19200 bps |
| TERMINAL | 9600 bps |
| PS·DATA | 9600 bps |
| HDR | 9600 bps |
| PC | 38400 bps |
| VCR (VTR) | 9600 bps |

## • RS485 CAMERA

This menu links to the submenu.
Move the cursor and press the CAM (SET) button to go into the menu. 750 RS485 CAMERA will appear on the monitor.

```
750 RS485 CAMERA

 SWITCHER=SLAVE1(1 of 5)

 CAM LCN PORT        CAM LCN PORT
   1  21              9  51
   2  22             10  52
   3  23             11  53
   4  24             12  54
   5  25             13  55
   6  26             14  56
   7  27             15  57
   8  28             16  58

     LCN:LOGICAL CAMERA NUMBER
```

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters.
* In normal connection, only MASTER is displayed.

**CAM:** This stands for a camera channel of the unit.
**LCN:** This stands for a logical camera number.
**PORT:** This stands for a port which connects the camera.
**RS485:** Select this when the camera is connected to the RS-485 camera port.
**DATA1/2/3:** Select this when the camera is connected to the DATA 1/2/3 port.

You can select the parameters only for the ports whose mode is set to “CAMERA” in 740 CAMERA/DATA1-4 PORT. (Refer to pp.74 and 75.) If the mode is set to others, a space will be displayed for PORT.

**Notes:**
- If five (Master and Slave 1 to 4) units are connected in the system, you can configure no parameters for MASTER.
- If the mode is changed to “TERMINAL-K1/2/3/4” in 740 CAMERA/DATA1-4 PORT, the PORT parameters will be deactivated even after set to RS485 or DATA1/2/3.

## • CAMERA CLEANING

**ON:** Activates the manual cleaning for the cameras.
**OFF:** Deactivates the manual cleaning.
When you set CAMERA CLEANING to ON and exit from the SETUP MENU, camera cleaning will start.
The factory default setting is OFF.

**Notes:**
- When the camera cleaning is active, cleaning will begin from CAM 1 in numerical order.
- Surveillance is impossible during the cleaning.
- The cleaning cannot be stopped after it is started.
- Refer to pp. 37 and 38 for details on RS-485 connections.
- The camera address needs to be corresponding with the camera number.

# ■ OPERATOR REGISTRATION

```
800 OPERATOR REGISTRATION

OPERATOR NO.=1
 ID          =150      PRIORITY= 1
 PASSWORD    =*****    LEVEL   = 1

 SWITCHER=SLAVE(1 of 5)
CAM LCN              CAM LCN
  1  21 VIEW&CONTROL  9  51 VIEW&CONTROL
  2  22 VIEW ONLY     10  52 VIEW&CONTROL
  3  23 VIEW&CONTROL  11  53 VIEW ONLY
  4  24 VIEW ONLY     12  54 VIEW&CONTROL
  5  25 VIEW&CONTROL  13  55 VIEW&CONTROL
  6  26 VIEW&CONTROL  14  56 VIEW&CONTROL
  7  27 VIEW&CONTROL  15  57 PROHIBITED
  8  28 VIEW&CONTROL  16  58 PROHIBITED
```

## ● How to Display

To display this menu on the monitor, move the cursor to 800 OPERATOR REGISTRATION in SETUP MENU by moving the joystick to ▼.Then, press the CAM (SET) button. The submenu appears on the monitor.

## ● Parameters

Move the joystick to move the cursor.
Press the NEXT or PREV button to select the desired parameters.
Press the numeric button(s) to enter a number.

### • OPERATOR NO.

This stands for an operator number. When you enter the number by pressing the NEXT, PREV or numeric button(s), this menu will display the associated operator's information. 1 to 16 is available.

### • ID

This stands for an operator ID. 1 to 99999 is available.

### • PASSWORD

This stands for an operator's password. 1 to 99999 is available. The password will be displayed as "*****" on the monitor.

### • PRIORITY

This stands for an operator's priority. 1 to 16 is available. (Refer to p. 15 for details on Priority Lock.)

### • LEVEL

This stands for an operator's restrict level. It is configurable through Level Table (refer to p. 91) of WJ-SX150A Administrator Console what kind of restriction is given to the operator. 1 to 3 is available.

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters.
* In normal connection, only MASTER is displayed.
**CAM:** This stands for a camera channel of the unit.
**LCN:** This stands for a logical camera number. 1 to 99 is selectable.

**• CAM 01 to 16:**

These stand for an operator's camera operation coverage. The following are the parameters.

**VIEW & CONTROL:** The operator can display the camera image on the monitor and control panning/tilting.

**VIEW ONLY:** The operator can display the camera image on the monitor, but cannot control the panning/tilting.

**PROHIBITED:** The operator can neither display the camera image on the monitor nor control the panning/tilting.

The following is the factory default setting of this menu.

| OPERATOR NO. | ID | PASSWORD | LEVEL | PRIORITY |
|---|---|---|---|---|
| 1 | 150 | 150 | 1 | 1 |
| 2 | 1 | 12345 | 1 | 2 |
| 3 | 100 | 100 | 1 | 3 |
| 4 | 101 | 101 | 1 | 4 |
| 5 | 102 | 102 | 2 | 5 |
| 6 | 103 | 103 | 3 | 6 |

CAM 1 to 16 = VIEW & CONTROL (for OPERATOR NO. 1 to 6)

**Note:** When you enter an invalid number, the parameter will return to the state before your numerical entry.

# ■ MULTIPLEXER MUX

```
900 MULTIPLEXER

 SWITCHER=SLAVE1(1 of 5)        Ver.*.**

    VCR REC MODE
910         ALARM      EXT.
920         NORMAL     EXT.
930 DYNAMIC REC        OFF
940 DUMMY BLACK        ON
950 CAM SW LOSS        ON
```

```
900 MULTIPLEXER

 SWITCHER=MASTER(5 of 5)        Ver.*.**


    VCR REC MODE
910         ALARM      ---
920         NORMAL     ---
930 DYNAMIC REC        ---
940 DUMMY BLACK        ---
950 CAM SW LOSS        ---
```

## ● How to Display

To display this menu on the monitor, move the cursor to 900 MULTIPLEXER in SETUP MENU by moving the joystick to ▲ or ▼. Then, press the CAM (SET) button. The submenu appears on the monitor.

## ● Parameters

Move the joystick to move the cursor.
Press the NEXT or PREV button to select the desired parameters.

**SWITCHER:** Select a unit (SLAVE1 to 4 and MASTER*) to configure the parameters.
* In normal connection, only MASTER is displayed.
**Ver. ∗. ∗∗:** Firmware version of a Multiplexer board

**• ALARM**

**EXT.:** Select this to gen-lock the unit with the recorder when an alarm is input to the unit.

**002,004 to 128 (field):** Select one of these alarm recording rates if the asynchronous unit is connected to the unit.

The factory default setting is EXT.

### • NORMAL

**EXT.:** Select this to gen-lock the unit during the normal operation.

**002,004 to 255 (field):** Select one of these normal recording rates if the asynchronous unit is connected to the unit.

The factory default setting is EXT.

### • DYNAMIC REC

**PRI.:** Select this to give recording priority to the camera channel with the alarm input.

**ONLY:** Select this to record the images from the alarm-associated camera channel.

**GROUP:** Select this to give recording priority to a group of up to 4 camera channels associated to the alarm input.

**OFF:** Select this to deactivate the alarm priority mode.

The factory default setting is OFF.

### • DUMMY BLACK

**ON:** Select this to display the black picture for a camera channel that is not connected to the camera.

**OFF:** Select this to skip the camera channels that are not connected to the camera in the sequence/spot mode.

The factory default setting is ON.

### • CAM SW LOSS

**ON:** Select this to make "CAMSW LOSS R∗" light up on the associated monitor when loss of the camera switching pulse is detected.

**OFF:** Select this not to make "CAMSW LOSS R∗" appear on the associated monitor when loss of the camera switching pulse is detected.

The factory default setting is ON.

**Note:** If EXT. is selected for 910 ALARM/920 NORMAL, the playback images cannot be displayed on the monitors which are not connected to the EXT IN connector. Confirm the images on those which are connected to the recorder.

## ■ MUX CAMERA TITLE MUX

```
1000 MUX CAMERA TITLE

 SWITCHER=SLAVE1(1 of 3)


 CAM LCN TITLE        CAM LCN TITLE
   1   1 C01           9  09 C09
   2   2 C02          10  10 C10
   3   3 C03          11  11 C11
   4   4 C04          12  12 C12
   5   5 C05          13  13 C13
   6   6 C06          14  14 C14
   7   7 C07          15  15 C15
   8   8 C08          16  16 C16

   LCN:LOGICAL CAMERA NUMBER
```

### ● How to Display

To display this menu on the monitor, move the cursor to 1000 MUX CAMERA TITLE in SETUP MENU by moving the joystick to ▲ or ▼. Then, press the CAM (SET) button. The submenu appears on the monitor.

### ● How to edit

The factory default settings are same as the illustration.
The editing procedure is the same as 500 CAMERA TITLE. (Refer to p. 71.)

**Notes:**

- Up to 8 alphanumeric characters are available for each Multiplexer board camera title.
- When moving the joystick to ▲ at the last text box of CAM 8 TITLE, the cursor will move to the first text box of CAM 9 TITLE.
- When moving the joystick to ▼ at the first text box of CAM 9 TITLE, the cursor will move to the last text box of CAM 8 TITLE.
- If five units are connected in the system, you can configure no parameters for MASTER.

# ■ Description of WJ-SX150A Administrator Console

WJ-SX150A Administrator Console is a utility software which can configure the system settings and control data of this surveillance system.
WJ-SX150A Administrator Console can configure the following settings.

## ● MASTER-SLAVE

- Master-Slave (p. 81)
- Logical Camera Number (p. 82)

## ● MANAGEMENT

- Put a file to SX150A (p. 83)
- Get a Configuration Data from SX150A (p. 83)

## ● SETUP

**Sequence Settings**
- Tour Sequence (p. 84)
- Group Sequence (p. 85)

**Schedule Settings**
- Timer Event (p. 85)
- Camera Cleaning (p. 86)
- Daylight Saving Time/Summer Time (p. 87)

**Alarm Settings**
- Alarm Mode (p. 88)
- Alarm Event (p. 89)
- Alarm Port (p. 90)

**Operator Settings**
- Operator Registration (p. 90)
- Level Table (p. 91)
- Monitor Selection (p. 92)
- Auto Login/Logout (Auto Log-in/Log-out) (p. 92)

**System Settings**
- Time & Date (p. 93)
- Cable Compensation/VD2/DATA (p. 94)
- Camera Title (p. 94)
- Data Port (p. 96)
- Recorder (p. 97)
- Multiplexer Mode (p. 98) MUX
- Multiplexer Title (p. 100) MUX

**WJ-SX150A Administrator Console**
- New (p. 101)
- Select Setup Data File (p. 101)
- Account Manager (p. 101)
- Communication Port (p. 102)

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- IBM is a trademark of International Business Machines Corporation.
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**Platform**
To install WJ-SX150A Administrator Console, the PC should meet the following requirements.
- Hardware requirements
  IBM PC or 100 % compatible, Pentium Ⅲ - equivalent or higher, 128 MB RAM, 5 MB hard drive space with additional space for configuration database (.sdt) and log.
  In addition, the PC must be equipped with a serial port.
- Operating system requirements
  Microsoft® Windows® 98, 98 SE, 2000, XP Professional
- Video display setting requirements
  * High color (16 bit) or higher
  * 800 x 600 resolution

When installing in the default system setting, the software is installed in the following directory:
C: \Program Files\Panasonic\SX150A

# ■ Installation/Uninstallation

## ● Installation

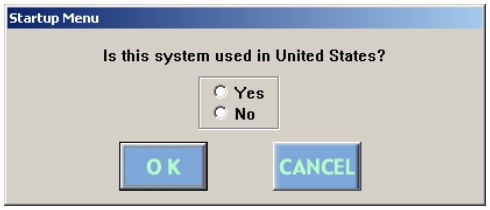
Insert the CD-ROM program disk into the CD-ROM drive on the PC. The file is located in the following directory.
E: \Admin\Setup.exe
Double-click "Setup.exe" to begin the installation. Respond to the dialog boxes by following the directions given.

## ● Uninstallation

1. Select "Start" – "Settings" – "Control Panel".
2. Click on the "Add/Remove Hardware" button.
3. Select WJ-SX150A Administrator Console and click on "Add/Remove".
4. Operate according to the direction in the window.

## ● Before Using WJ-SX150A Administrator Console

1. Select "Start" – "Program" – "Panasonic" – "WJ-SX150A Administrator Console x.xx*" or double-click the "WJ-SX150A Administrator Console x.x" icon on the desktop.
   *x.xx is a version number.
2. When you launch WJ-SX150A Administrator Console for the first time, the following window will appear on the PC screen.
   Select “Yes”.

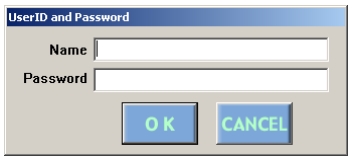



→The selection will be memorized to WJ-SX150A Administrator Console while launching it.

**Note:** To change the selection you have done in the "Startup Menu" window, restart the WJ-SX150A Administrator Console while holding down the SHIFT key on the PC keyboard.

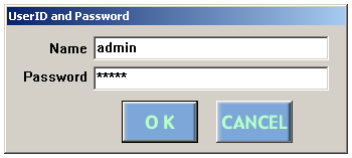
## ● Startup/Termination

1. Select "Start" – "Program" – "Panasonic" – "WJ-SX150A Administrator Console x.xx*" or double-click the "WJ-SX150A Administrator Console x.x" icon on the desktop.
   * x.x: Software version

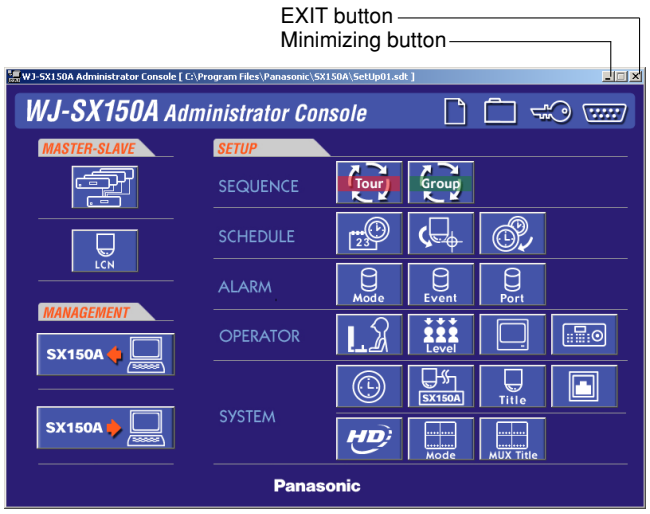



→The User ID and Password Required window will appear on the PC screen.

2. Enter "admin" and "sx150" in the boxes "Name" and "Password" respectively.
   Then, click on the OK button.




→WJ-SX150A Administrator Console starts up and the main window will appear on the PC screen.




3. When terminating the software, click on the EXIT button or press the ESC button on the PC keyboard. The main window will close and WJ-SX150A Administrator Console will be terminated.

**Note:** The operator name and password are changeable. Operator addition is also available. The configuration of each operator name, password and level are necessary. (Refer to p. 101 Account Manager.)

## ■ The Main Window

This window appears when starting up WJ-SX150A Administrator Console.
Clicking on each button in the window will display the associated configuration window.
Refer to the description of each window for details.



**MASTER-SLAVE**

**(Master-Slave):**
Master-Slave window (p. 81)

**(Logical Camera Number)**
Logical Camera Number window (p. 82)

**MANAGEMENT**

**(Put to SX150A):**
Put a file to SX150A window (p. 83)

**(Get from SX150A):**
Get a Configuration Data from SX150A window (p. 83)

**SEQUENCE**

**(Tour Sequence):** Tour Sequence window (p. 84)

**(Group Sequence):** Group Sequence window (p. 85)

**SCHEDULE**

**(Timer Event):**
Timer Event window (p. 85)

**(Camera Cleaning):**
Camera Cleaning window (p. 86)

**(Daylight Saving Time/Summer Time):**
Daylight Saving Time/Summer Time window (p. 87)

**ALARM**

**(Alarm Mode):**
Alarm Mode window (p. 88)

**(Alarm Event):**
Alarm Event window (p. 89)

**(Alarm Port):**
Alarm Port window (p. 90)

**OPERATOR**

**(Operator Registration):**
Operator Registration window (p. 90)

**(Level Table):**
Level Table window (p. 91)

**(Monitor Selection):**
Monitor Selection window (p. 92)

**(Auto Login/Logout):**
Auto Login/Logout window (p. 92)

**SYSTEM**

**(Time & Date):**
Time & Date window (p. 93)

**(Cable Compensation/VD2/DATA):**
Cable Compensation/VD2/DATA window (p. 94)

**(Camera Title):**
Camera Title window (p. 94)

**(Data Port):**
Data Port window (p. 96)

**(Recorder Control):**
Recorder window (p. 97)

**(Multiplexer Mode):** MUX
Multiplexer Mode window (p. 98)

**(Multiplexer Title):** MUX
Multiplexer Title window (p. 100)

In addition, the main window has the following buttons.

**(New):**
New window (p. 101)

**(File Open):**
Select Setup Data File window (p. 101)

**(Account Manager):**
Account Manager window (p. 101)

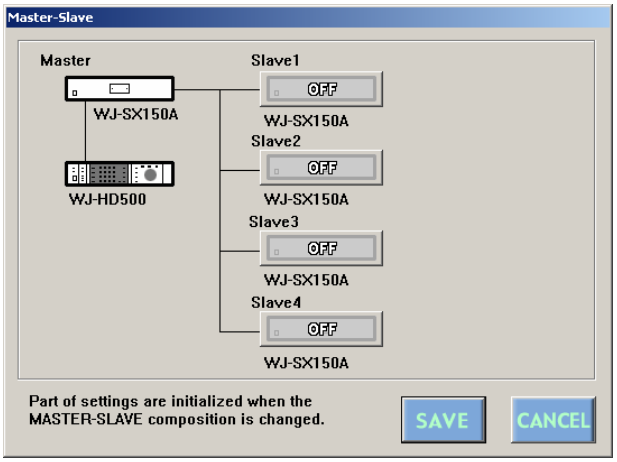
**(Communication Port):**
Communication Port window (p. 102)

**Panasonic (Panasonic):**
Opens the version information window of WJ-SX150A Administrator Console. Clicking on "OK" button will close the window.

**Note:** To reflect each configuration to the system, save the file by pressing the SAVE button before closing the window. After that, be sure to put the file from the PC to the unit.

# ■ Master-Slave

This window configures the composition of master-slave connection. Recorders selected in the Recorder window (p. 97) are activated/deactivated in the Master-Slave window.




## ● How to Display

To display this window, click on the (Master-Slave) button in the main window (p. 80).

## ● How to Display

**• Master**

The Master unit and the connected recorder are displayed.

### • Slave

Slave units and connected recorders are displayed. To activate/deactivate Slave units, click the ON/OFF button of a desired Slave unit. When Slave units are set to ON, their unit names become selectable in SETUP MENU to configure the parameters.

**(Save Exit) button**

Saves the configuration and closes the Master-Slave window.

**(Cancel Exit) button**

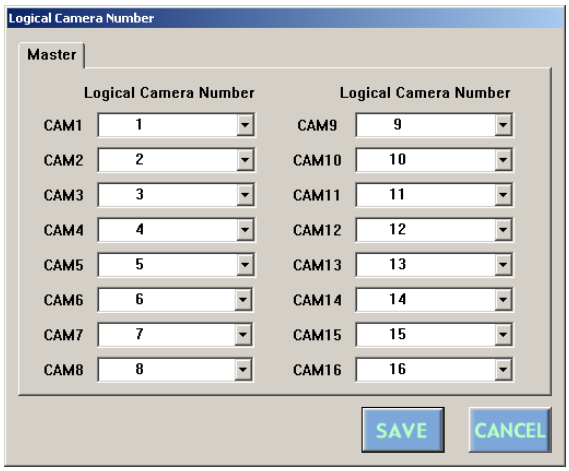
Cancels the configuration and closes the Master-Slave window.

**Notes:**

- If you configure the master-slave composition, settings concerning LCN (logical camera number) and Multiplexer Title (refer to p. 100) will be changed. When you click on the Save Exit button, a message window will appear to confirm you the change.
- In WJ-SX150A Administrator Console, camera channels of the Master unit which are connected to MONITOR OUT 1/2/3/4 of Slave units are displayed in gray. You cannot configure the parameters.

## ■ Logical Camera Number

This window configures logical camera numbers assigned to camera channels of each unit. During operation, logical camera numbers are used for camera control and monitor display.




To display this window, click on the (Logical Camera Number) button in the main window (p. 80).

## ● How to Display

### • CAM 1 to 16

This stands for a camera channel of the unit.

### • Logical Camera Number

Click on each drop-down menu to select a desired logical camera number. 1 to 99 is selectable. For camera channels without camera connections, select "- -".

**(Save Exit) button**

Saves the configuration and closes the Logical Camera Number window.

**(Cancel Exit) button**

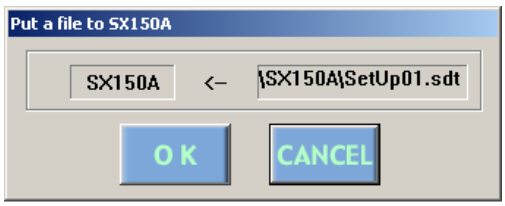
Cancels the configuration and closes the Logical Camera Number window.

**Notes:**

- If logical camera numbers are not selected, the cameras' LCNs are not displayed in each window of SETUP MENU and WJ-SX150A Administrator Console.
- You can select a logical camera number for only one channel. When you select the same number more than one time, a message will appear. The message will notify you that the number has been already used. If you click on "Yes", the newer will be activated and the older will be changed to "- -". If you click on "No", the changed parameters will return to the former state.
- If five units (Master and Slave 1 to 5) are connected in the system, you cannot select logical camera numbers for Master.

## ■ Put a file to SX150A

Pressing this button will start the putting of the configuration file from the PC to the unit.




### ● How to Display

To display this window, click on the SX150A (Put to SX150A) button in the main window (p. 80).

### ● Parameters

The file name of the configuration data appears.

**O K (OK) button**
To put the configuration file from the PC to the unit, click on this button.

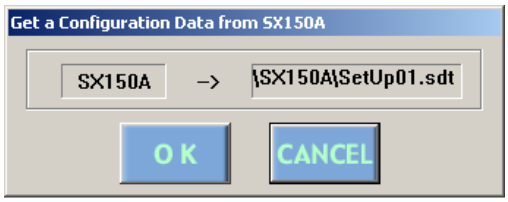
**CANCEL (Cancel Exit) button**
To cancel the putting of the configuration file from the PC to the unit, click on this button.

**Notes:**

- The setup file has been configured at the factory, and the file names appear on the main window's title bar.
- Put the file from the PC to the unit when the time with no necessary to the continuous system operation, such as after-hours. After the file putting, the system will automatically restart. Then, the system controllers will temporarily log out.
- To change a file, select a file again. (Refer to p. 101 Select Setup Data File.)
- The configuration file cannot be put to the unit while opening SETUP MENU.
- It takes a few seconds to put a file to SX150A, and you might assume the PC has been freezing.
  Wait until the message “Completed!” appears on the screen. If the message “Connection error” appears, the PC is incorrectly connected to the unit. Confirm the settings of WJ-SX150A Administrator Console and retry the file putting.
  (Refer to p. 74 CAMERA/DATA 1-4 PORT and p. 102 Communication Port.)

## ■ Get a Configuration Data from SX150A

Pressing this button will start the getting of the configuration data from the unit to the PC.




### ● How to Display

To display this window, click on the SX150A (Get from SX150A) button in the main window (p. 80).

### ● Parameters

The file name of the configuration data appears.

**O K (OK) button**
To get the configuration data from the unit to the PC, click on this button.

**CANCEL (Cancel Exit) button**
To cancel the getting of the configuration data from the unit to the PC, click on this button.

**Notes:**

- The configuration data getting is also possible during the surveillance, for it will not interfere with the system operation.
- The past data will be overwritten when getting a new configuration data.
- To change the getting directory, select it. (Refer to p. 101 Select Setup Data File.)
- When the file getting has been successfully executed, “Completed!” will appear. If “Connection Error” appears, confirm the connection and the serial port setting of the PC and the unit. (Refer to p. 74 CAMERA/DATA 1-4 PORT and p. 102 Communication Port.) If “Failed!” appear, retry the file getting.

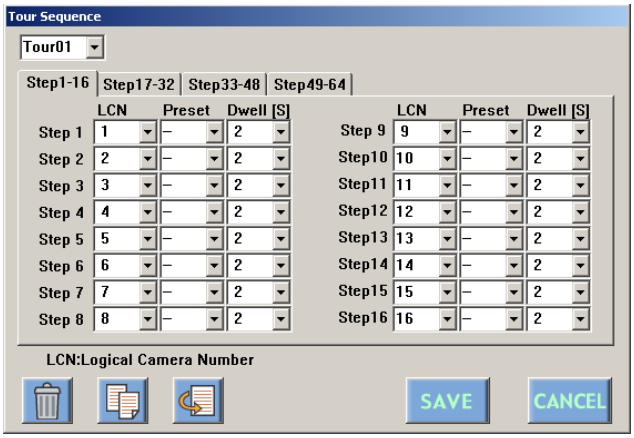
# ■ Tour Sequence

This window configures the parameters of tour sequences: the operating camera, dwell time*, preset position** in each step.
Each sequence has up to 64 steps, and up to 32 sequences are configurable.
The configuration of a tour sequence can be copied to another one.

* the display time of a camera image
** the panning/tilting position which has been preset in advance

**Notes**:

- Enter the parameters from Step 1 in a sequential order. If you skip a step, it will result in an error.
- After selecting a camera number, be sure to select the dwell time, too. If you skip either of them, the message requesting the parameter entry will appear.




## ● How to Display

1. To display this window, click on the (Tour Sequence) button in the main window (p. 80). Or click on the (Tour Sequence) button in the Group Sequence window.
2. To select Tour 1 to 32, click on a desired drop-down menu in the Tour Sequence window.
3. After configuring 16 steps, click on a tab followed by next 16 steps.

## ● Parameters

### LCN

Selects the operating camera in each step.
The camera is selectable from LCN 1 to 99. After selecting LCN, select the time for Dwell.

**Note:** Configure Step 1 to the last step in a sequential order. If there is a skipped step whose LCN and/or Dwell is "- -", that may cause an error. Then, the message will appear to ask you to select both LCN and Dwell.

### Preset

Selects the preset position of the operating camera.
The preset position is selectable from Preset 1 to 64.

**Note:** Refer to p. 109 Program Preset Position for details of how to program preset positions.

### Dwell

Selects the dwell time of the operating camera.
The dwell time is selectable from 1 to 30 seconds (by a second). Set "--" for Dwell when you have selected "--" for Cam.

**(DELETE) button**
Deletes the configuration of all the steps of the selected tour sequence.

**(COPY) button**
Copies the configuration of all the steps of the selected tour sequence to the another tour.

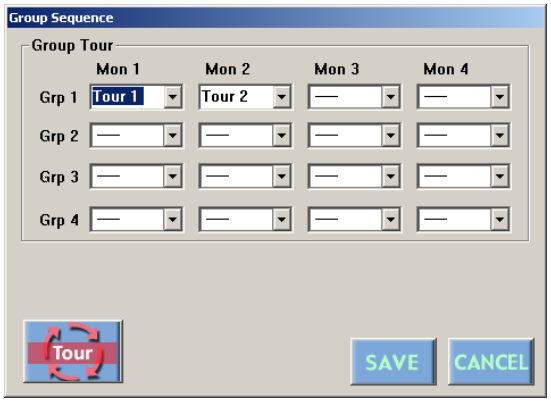
**(PASTE) button**
Pastes the cut or copied configuration to another tour sequence.

**(Save Exit) button**
Saves the configuration and closes the Tour Sequence window.

**(Cancel Exit) button**
Cancels the configuration and closes the Tour Sequence window.

# ■ Group Sequence

This window configures the parameters of group sequences.
Each group sequence has up to 4 tour sequences which are assigned to the monitors.




## ● How to Display

To display this window, click on the (Group Sequence) button in the main window (p. 80).

## ● Parameters

### Mon 1 - Mon 4

Selects the tour sequence displayed on each monitor.

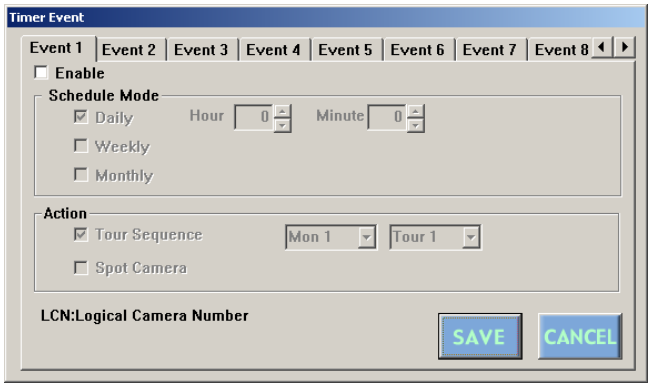
**(Tour Sequence) button**
Displays the Tour Sequence window for the tour sequence configuration.

**(Save Exit) button**
Saves the configuration and closes the Group Sequence window.

**(Cancel Exit) button**
Cancels the configuration and closes the Group Sequence window.

# ■ Timer Event

This window configures the parameters of timer events: the schedule (daily, weekly or monthly) and action.
Up to 50 events are configurable.
tour sequence or spot mode is selectable.




## ● How to Display

To display this window, click on the (Timer Event) button in the main window (p. 80).

## ● Parameters

### • Enable

Checking on the box will enable the configuration.

### • Schedule Mode Group

Check on the desired box for the timer event configuration.

**Daily:** To execute the event at a desired time every day, check on this boxes.
To determine the time, click on the Hour and Minute boxes.

**Weekly:** To execute the event at a desired time and day(s) of the week, check on this box.
To determine the time, click on the Hour and Minute boxes.
Multiple selection is available for days of the week.

**Monthly:** To execute the event at a desired time and day(s) of the month, check on this box.
To determine the time, click on the Hour and Minute boxes.

### • Action Group

Check on the desired action to execute.

**Tour Sequence:** Configures and executes the tour sequence according to the schedule in the Scheduled Mode group. When you have selected Tour Sequence, select the number of monitor (Mon 1 to 4) and tour (Tour 1 to 32).

**Spot Camera:** Executes the spot mode according to the schedule in the Scheduled Mode group. When you have selected Spot Camera, select the number of monitor (Mon 1 to 4), camera (LCN 1 to 99) and preset position (Pre 1 to 64).

**(Save Exit) button**
Saves the configuration and closes the Timer Event window.

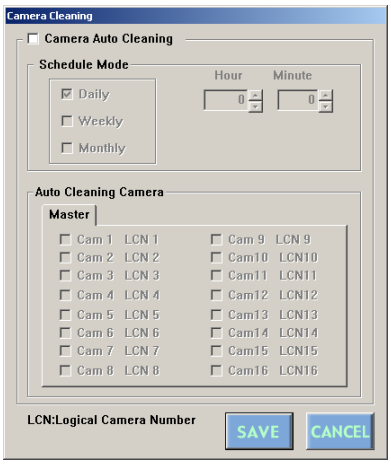
**(Cancel Exit) button**
Cancels the configuration and closes the Timer Event window.

**Notes:**

- In order to stop a scheduled event on a monitor, you need to program another event or manually select another activity. (For example, you need to select a camera or run a tour.)
- If you set more than one event with the same schedule, the event with the smallest number will be activated.

# ■ Camera Cleaning

This window configures the parameters of camera cleaning function: the schedule (daily, weekly or monthly) and cameras to be cleaned.




## ● How to Display

To display this window, click on the  (Camera Cleaning) button in the main window (p. 80).

## ● Parameters

### • Camera Auto Cleaning

Checking on the box will enable the configuration.

### • Schedule Mode Group

Check on the desired box for the auto cleaning configuration.

**Daily:** To execute the cleaning at a desired time every day, check on this box.
To determine the time, click on the Hour and Minute boxes.

**Weekly:** To execute the cleaning at a desired time and day(s) of the week, check on this box.
To determine the time, click on the Hour and Minute boxes.

**Monthly:** To execute the cleaning at a desired time and day of the month, check on this box.
To determine the time, click on the Hour and Minute boxes.

### • Auto Cleaning Camera

Check on the desired camera to execute the cleaning.

**(Save Exit) button**
Saves the configuration and closes the Camera Cleaning window.

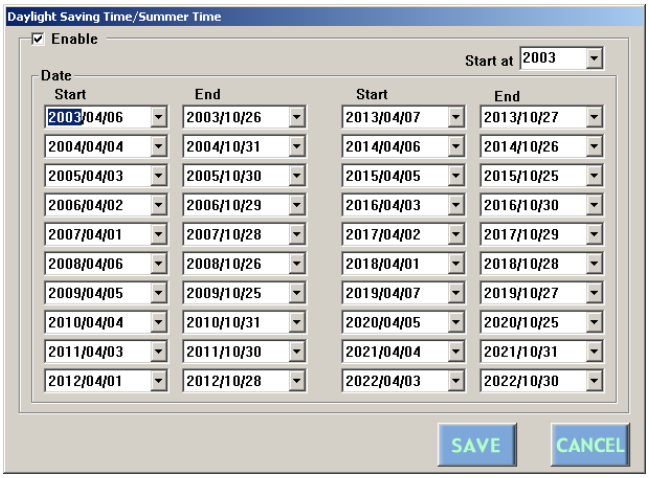
**(Cancel Exit) button**
Cancels the configuration and closes the Camera Cleaning window.

**Notes:**

- When the camera cleaning is active, cleaning will begin from LCN 1 in numerical order.
- Surveillance is impossible during the cleaning.
- The cleaning cannot be stopped after it is started.

# ■ Daylight Saving Time/Summer Time

This window configures the parameters of daylight saving time.




## ● How to Display

To display this window, click on the  (Daylight Saving Time/Summer Time) button in the main window (p. 80).

## ● Parameters

### • Enable

Checking on the box will enable the configuration.

### • Date Group

1. Select the start date of the daylight saving time in the Start drop-down menu.
2. Select the end date of the daylight saving time in the End drop-down menu. Select a later date than the Start date. When selecting an earlier date, a message will appear.

**Note:** When clicking on the ▼ button beside a drop-down menu, a calendar will pop up. To determine the start and end dates, click on the desired date on the calendar. To go to the next or previous month, click on the [◄] or [►] button and select the dates when the daylight saving time starts and ends.

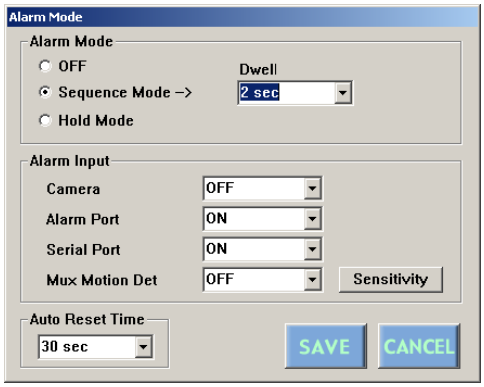



 **(Save Exit) button:**
Saves the configuration and closes the Daylight Saving Time/Summer Time window.

 **(Cancel Exit) button:**
Cancels the configuration and closes the Daylight Saving Time/Summer Time window.

# ■ Alarm Mode

This window configures the operation parameters when an alarm signal is input: an alarm mode, auto reset time and alarm input.




## ● How to Display

To display this window, click on the 

(Alarm Mode) button in the main window (p. 80).

## ● Parameters

### • Alarm Mode

Checking on the box of the desired alarm mode.

**OFF:** The system operation does not change into any other mode.

**Sequence Mode:** Camera images are displayed on the monitor in either the spot mode or tour sequence. When more than one alarm are input, the image associated to each alarm is displayed in the sequence mode.

**Note:** Click on the Dwell drop-down menu to select the dwell time.

**Hold Mode:** Camera images are displayed on the monitor in either the spot mode or tour sequence. Even more than one alarm are input, the image associated to the initial alarm is continuously displayed.

**Notes:**

- The alarm mode is activated when alarm input signals are assigned to the same monitor through 420 ALARM EVENT or the Alarm Event (refer to pp. 67 and 68/ p. 89) window.
- While alarm is activated, you cannot operate the functions related to the Multiplexer board.

### • Alarm Input Group

Select the alarm input to be accepted. Multiple Selection is available.

**Camera**

This stands for that an alarm input is accepted via the CAMERA IN connectors or the RS-485 ports.

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

**REC ONLY:** Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Note:** You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

**OFF:** An alarm input is accepted neither via the CAMERA IN connectors nor the RS-485 ports.

The factory default setting is OFF.

**Alarm Port**

This stands for that an alarm input is accepted via the ALARM port (25-pin D-sub connector) at the rear panel.

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

**REC ONLY:** Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Note:** You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

**OFF:** An alarm input is not accepted via the ALARM port.

The factory default setting is ON.

**Serial Port**

This stands for that an alarm input is accepted via the SERIAL port.

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

**REC ONLY:** Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Note:** You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

**OFF:** An alarm input is not accepted via the SERIAL port.

The factory default setting is ON.

**MUX MOTION DET** MUX **:** This stands for that the unit's motion detector is activated. When a camera detects the brightness-level change and transmit an alarm signal, the alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

**ON:** The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit.)

**REC ONLY:** Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

**Note:** You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

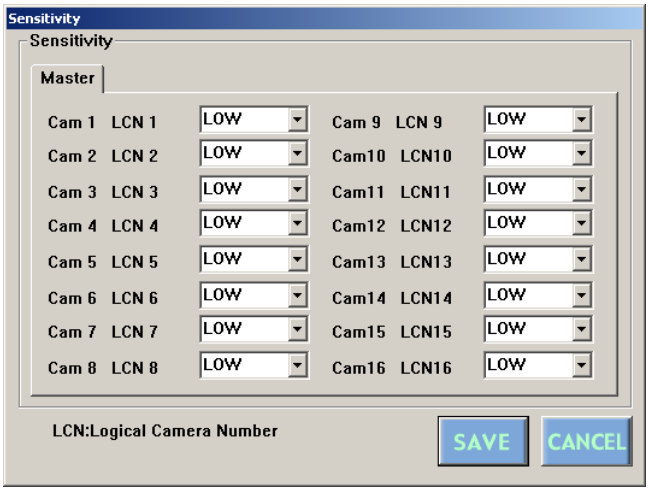
**OFF:** An alarm input is not accepted by the motion detector.

The factory default setting is OFF.

**Sensitivity:** When you click this button, the Sensitivity window will appear.

## ● Sensitivity MUX

When you press this button, the Sensitivity window will appear. In this window, you can configure the sensitivity level of the Multiplexer motion detector on each camera channel.




**OFF:** The motion detector is not activated on the camera channel.
**LOW:** The sensitivity level is low.
**MID:** The sensitivity level is medium.
**HIGH:** The sensitivity level is high.

The factory default setting of all the channels is LOW.

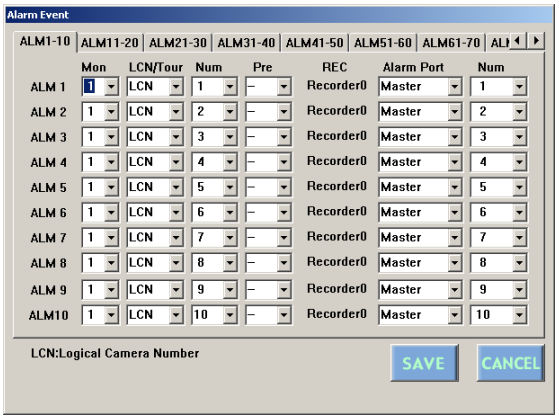
**• Auto Reset Time**
Select the time to reset the alarm input.
The selectable time: OFF (not resetting the alarm), 10, 20, 30, 40, 50, 60, 120 or 180 (seconds)
The factory default setting is 30 sec.

SAVE **(Save Exit) button**
Saves the configuration and closes the Alarm Mode window.

CANCEL **(Cancel Exit) button**
Cancels the configuration and closes the Alarm Mode window.

# ■ Alarm Event

This window configures the details of operation parameters when an alarm signal is input: the monitor and mode to display the alarm image, and the preset position of the camera. Up to 99 alarm inputs are configurable.




## ● How to Display

To display this window, click on the Event (Alarm Event) button in the main window (p. 80).

## ● Parameters

### Mon (Monitor)

Select the monitor to display the alarm image.

### LCN/Tour

Select the spot camera number or the tour sequence number.

**LCN:** Select this to display a spot picture.
**Tour:** Select this to execute a tour sequence.
**Num:** Select a LCN or Tour number. For LCN, 1 to 99 is selectable. For Tour, 1 to 32 is selectable.

**Pre (Preset Position Number)**
Select the preset position of the camera when selecting the spot camera number in Spot/Tour. Position 1 to 64 is selectable for Pre. When the camera is not equipped with the preset position function, select "--".

### REC

This stands for a recorder activated with an alarm signal. (Refer to the diagram in p. 68.)

### Alarm Port

Select the unit whose alarm port is activated with an alarm signal. Master or Slave 1/2/3/4 is selectable.

### Num

Select the alarm port number. 1 to 16 is selectable. To deactivate the alarm event, select "- -".

**Notes:**

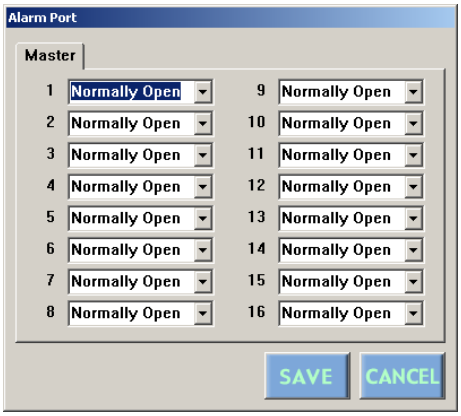
- If having selected a tour sequence for a monitor, another tour number or spot camera will not be available when selecting the monitor for another alarm event. That will result in an error.
- Each Alarm Port and Num can be assigned to only one ALM. When you enter the same Alarm Port and Num more than one time, a message will appear. If you click on "Yes", the newer will be activated and the older will be changed to "- -". If you click on "No", the changed parameters will return to the former state.

**(Save Exit) button**
Saves the configuration and closes the Alarm Event window.

**(Cancel Exit) button**
Cancels the configuration and closes the Alarm Event window.

## ■ Alarm Port

This window configures the parameters of alarm inputs.




### ● How to Display

To display this window, click on the (Alarm Port) button in the main window (p. 80).

### ● Parameters

Select the desired alarm input parameter to assign in each alarm port's drop-down menu.

**Normally Open:** Normally Open contact.
**Normally Close:** Normally Close contact
**Time Adjust:** Time adjustment signal

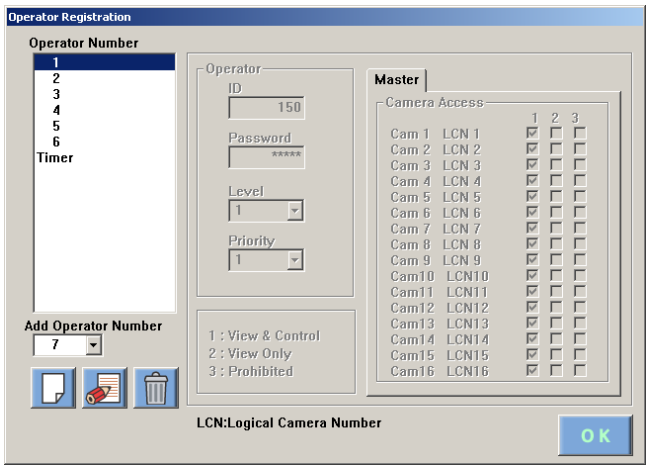
**(Save Exit) button**
Saves the configuration and closes the Alarm Input window.

**(Cancel Exit) button**
Cancels the configuration and closes the Alarm Input window.

## ■ Operator Registration

This window configures the parameters of each operator: the ID, password, level, priority and camera access.

**Note:** Before configuring this window, check on the restrict level of each operation in the Level Table window.




### ● How to Display

To display this window, click on the (Operator Registration) button in the main window (p. 80).

## ● Parameters

### • Operator Number

This box displays a list of registered operators.

**1-6:** These are operator numbers who are registered as the factory default setting. Operator Number 1 cannot be deleted.

**Timer:** This operator is used for the priority change of a timer event. When the timer event's priority is higher than that of an operator, the event is valid. When an operator's priority is higher than that of a timer event, the event is invalid. This operator cannot be deleted.

### • Add Operator Number

This drop-down menu is used for the new operator number selection. 7 to 16 can be added.

### • Operator Group

This group configures each operator's password, level and priority.

**ID:** Enter an operator's ID. From 1 to 99999 are available.

**Password:** Enter a password. From 1 to 99999 are available.

**Level:** Select 1, 2 or 3. Refer to Level Table for details on level setting.

**Priority:** Select the operator's priority from 1 (highest) to 16 (lowest).

### • Camera Access Group

This group configures the camera operation coverage of each operator.

Click on each camera's checkboxes and determine the available operation.

**1 (View & Control):** The operator can display the camera image on the monitor and control panning/tilting.

**2 (View Only):** The operator can display the camera image on the monitor, but cannot control the panning/tilting.

**3 (Prohibited):** The operator can neither display the camera image on the monitor nor control the panning/tilting.

**(Add) button**

Adds a new operator to WJ-SX150A.

**(Edit) button**

The registered parameters become editable by clicking on this button after selecting the operator number.

**(Delete) button**

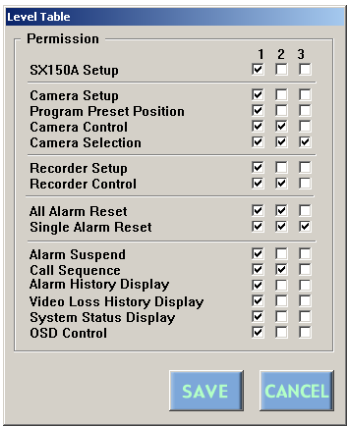
Deletes an operator from WJ-SX150A after you select the operator.

**(OK) button**

Saves the configuration and closes the Operator Registration window.

# ■ Level Table

This window configures the restrict level of each operation. The restrict level is classified in Level 1, 2, and 3.




## ● How to Display

To display this window, click on the Level (Level Table) button in the main window (p. 80).

## ● Parameters

**• Permission**

Click on each checkbox to classify the following operations by three levels.

**SX150A Setup:** Setting up this matrix switcher system

**Camera Setup:** Setting up the cameras

**Program Preset Position:** Registering a camera's preset position

**Camera Control:** Controlling a camera

**Camera Selection:** Selecting a camera

**Recorder Setup:** Displaying the recorder's setup menu

**Recorder Control:** Controlling the recorder

**All Alarm Reset:** Resetting all the alarms

**Single Alarm Reset:** Resetting an alarm

**Alarm Suspend:** Suspending an alarm

**Call Sequence:** Activating a tour or group sequence

**Alarm History Display:** Displaying the alarm history

**Video Loss History Display:** Displaying the video loss history

**System Status Display:** Displaying the system status

**OSD Control:** Controlling on-screen display (Time and date, monitor status, camera title, and event)

**SAVE (Save Exit) button:**

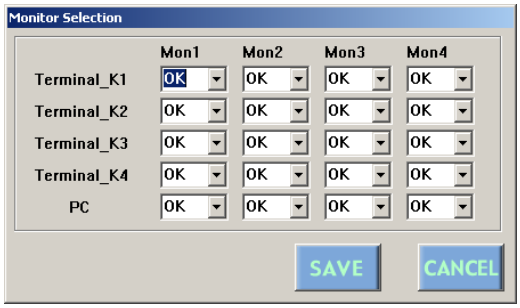
Saves the configuration and closes the Level Table window.

**CANCEL (EXIT) button**

Cancels the configuration and closes the Level Table window.

# ■ Monitor Selection

This window determines whether a system controller or PC can select a monitor.




## ● How to Display

To display this window, click on the (Monitor Selection) button in the main window (p. 80).

## ● Parameters

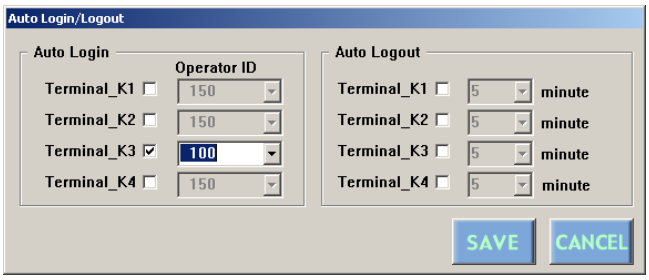
Select OK to permit each controller and the PC to control Monitor 1 to 4.
Select NG to restrict each controller and the PC to control Monitor 1 to 4.

**(Save Exit) button**
Saves the configuration and closes the Monitor Select window.

**(Cancel Exit) button**
Cancels the configuration and closes the Monitor Select window.

# ■ Auto Login/Logout (Auto Log-in/Log-out)

This window configures the auto log-in/log-out parameter of each data port.
An operator is selectable for auto log-in function.




The log-out time is selectable for auto log-out function.

## ● How to Display

To display this window, click on the (Auto Login/Logout) button in the main window (p. 80).

## ● Parameters

### • Auto Login Box

Click on the checkboxes Terminal_K1 to K4 to select an operator for auto log-in. Then, select an operator ID. It will be the log-in ID of the system controller connected to the data port.

### • Auto Logout Box

Click on the checkbox of the data port connecting the system controller for auto log-out. Then, select the elapsed time for auto log-out.

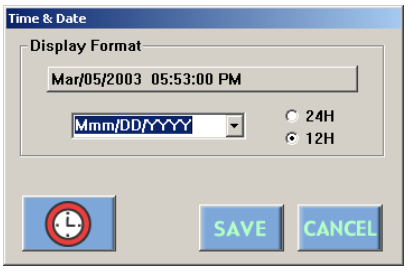
**(Save Exit) button**
Saves the configuration and closes the Auto Login/Logout window.

**(Cancel Exit) button**
Cancels the configuration and closes the Auto Login/Logout window.

**Note:** Both of auto log-in and auto log-out cannot be assigned to the same data port.
Either of them is selectable.

# ■ Time & Date

This window configures the unit's clock display pattern. The unit's clock time is also adjustable.




This picture is the example for U. S. model.
Out of the U. S., the display pattern is Date/Month/Year.

## ● How to Display

To display this window, click on the (Clock) button in the main window (p. 80).

## ● Parameters

### • Display Format

The current date & time is displayed.
Click on the drop-down menu and select the display pattern format.
The date display is selectable from 5 patterns.
The time display is selectable from 2 patterns (12H or 24H).
The following are the display patterns:

DD/MM/YYYY…21/08/2001
MM/DD/YYYY…08/21/2001
DD/Mmm/YYYY…21/Aug/2001
YYYY/MM/DD…2001/08/21
Mmm/DD/YYYY…Aug/21/2001
The factory default setting is Mmm/DD/YYYY pattern.
(Out of the U. S., the factory default setting is DD/MM/YYY.)

**(Clock) button**
Displays the Clock window.

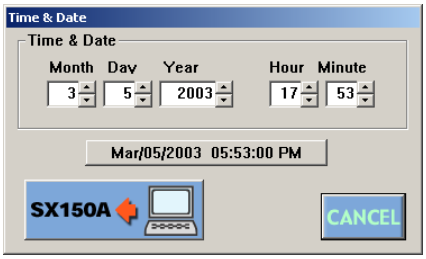
**(Save Exit) button**
Saves the configuration and closes the Time & Date, window.

**(Cancel Exit) button**
Cancels the configuration and closes the Clock Disp window.

**Note:** The display pattern will be updated when the setting file has been put from the PC to the unit.

## ● Clock

This window configures the unit's clock.
The pattern of the Time & Date box depends on the setting through the Time & Date window.




This picture is the example for U. S. model.

### • How to display

To display this window, click on the (Clock) button in the Time & Date window.

### • Parameters

**Time & Date Box:** To adjust the clock, click on the ▼ or ▲ buttons of Year, Month, Day, Hour and/or Minute

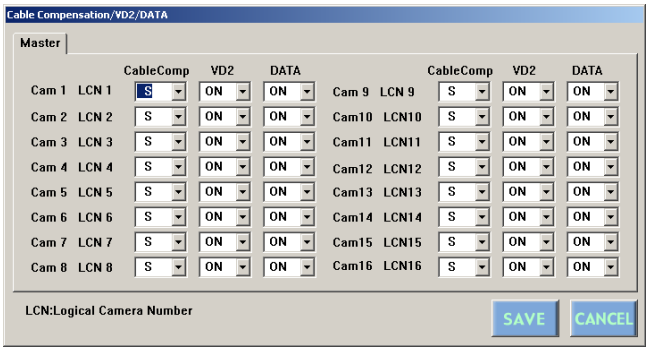
**(Put to SX150A) button:** Changes the unit's clock time into the one which has been configured in this window.

**(Cancel Exit) button:** Cancels the configuration and closes the Clock window.

**Note:** The clock display pattern is not updated by clicking the (Put to SX150A) button in this window. The setup file update will be necessary. (Refer to p. 83 Put a File to SX150A.)

# ■ Cable Compensation/VD2/DATA

This window configures the following parameters of each camera: the cable length for transmission loss compensation and whether to send the VD2 timing pulse or control data with the camera output signals.




## ● How to Display

To display this window, click on the  (Cable Compensation/VD2) button in the main window (p. 80).

## ● Parameters

**Cable Comp:** Select the cable length for each camera.
- **S:** Less than 400 m (1 300 ft)
- **M:** 400 m (1 300 ft) to 700 m (2 300 ft)
- **L:** 700 m (2 300 ft) to 900 m (3 000 ft)

**VD2:** To send the VD2 timing pulse with the camera output signal, select ON.
Not send the VD2 timing pulse with the camera output signal, select OFF.

**DATA:** To send the control data with the camera output signal, select ON.
Not send the control data with the camera output signal, select OFF.

 **(Save Exit) button**
Saves the configuration and closes the Cable Compensation/VD2/DATA window.

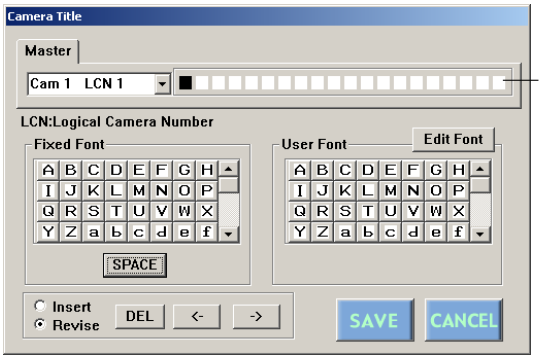
 **(Cancel Exit) button**
Cancels the configuration and closes the Cable Compensation/VD2/DATA window.

# ■ Camera Title

This window configures the title for each camera.
Up to 20 characters (camera title + alphanumeric characters) are available for the title.

WJ-SX150A Administrator Console has the following built-in characters:
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrs
t u v w x y z 0 1 2 3 4 5 6 7 8 9 ! " # $ % & ' ( ) * + , – . / : ;
←=→?•_ÄÜÖÆÑÂØäüöæñâøÁÇÉÌÒÙßàáâçèéêëìíîïòóôùúû

In addition, symbols, special characters and original characters are editable in the bitmap font.




Camera title input area

## ● How to Display

To display this window, click on the  (Camera Title) button in the main window (p. 80).

## ● Parameters

### • Drop-down menu

Camera channel and logical camera number are displayed here. Select a desired camera.

### • Fixed Font Box

The fixed-font characters are displayed here.

**SPACE:** To make a space in the text-box area, click on this button.

### • User Font Box

The character displayed here is editable by users.

**Edit Font:** To display the Edit Font window, click on this button.

### • Insert / Revise Radio button

To insert a character in the text-box area, click on the Insert button. To revise the character there, click on the Revise button.

 **(Save Exit) button**
Saves the configuration and closes the Camera Title window.

**Note:** Be sure to click on this button after editing user font characters. Otherwise, the edited characters will be canceled.

**(Cancel Exit) button**
Cancels the configuration and closes the Camera Title window.

## ● Edit Camera Title

1. Select the desired camera in the drop-down menu to edit its camera title. The cursor blinks at the first block in the text box.
2. Click on the <– or –> button to move the cursor to the desired position.
3. Click on the desired character button in the Fixed Font or User Font box. The character will be entered in the text box.
4. Repeat Step 2 and 3 to enter the camera title.
5. After the entry, click on the SAVE (Save Exit) button.
   The camera title will be saved.

**To Enter a Space in the Text Box**
1. Click on the <– or –> button to move the cursor to the desired position.
2. Click on the SPACE button.

**To Delete a Character in the Text Box**
1. Click on the Revise button.
2. Click on the <– or –> button and move the cursor to the character for deletion.
3. Click on the DEL button.
   The character will be deleted from the text box.

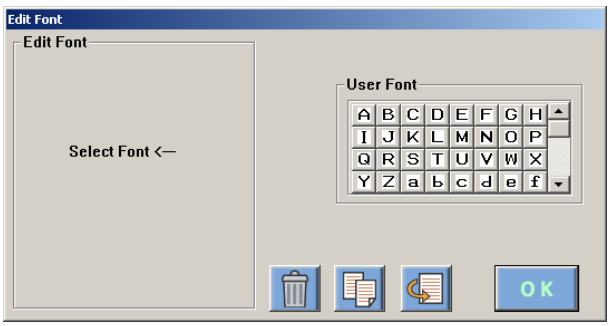
**To Revise a Character in the Text Box**
1. Click on the Revise button.
2. Click on the <– or –> button and move the cursor to the character for revision.
3. Click on the desired character.
   The character will be entered in the text box.

**To Insert a Character in the Text Box**
1. Click on the Insert button.
2. Click on the <– or –> button and move the cursor to the block to enter a character.
3. Click on the SPACE button to enter a space.
4. Click on the Revise button.
5. Click on the desired character in the text box.
   The character will be inserted in the text box.

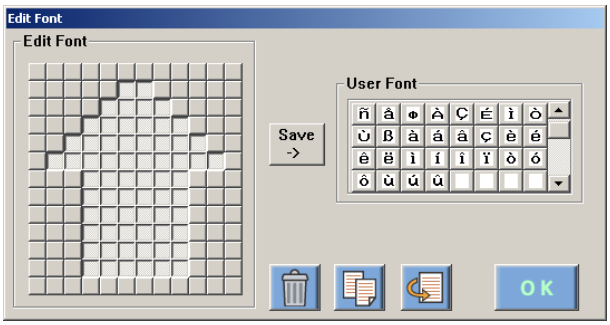
**To Cancel the Entry**
Click on the CANCEL (Cancel Exit) button.
The entry will be canceled and the Camera Title window will close.

## ● Edit Font Window

**The Window Soon after Opening**




**The Window during the Edit**




### • How to Display

To display this window, click on the Edit Font button in the Camera title window.

### • Parameters

**User Font Box:** The registered user font characters are displayed here. Up to 1600 characters (20 for each camera x 80) are registerable.

**Edit Font Box:** The selected user font characters are displayed here in 12 x 13 dots.

**(Delete) button:** Deletes an user font character.
1. Click on the desired character in the User Font box.
2. Click on the Delete button.

**(Copy) button / (Past) button:** A user font character can be copied by clicking these buttons.

**Save –> button:** The edited or deleted character is registered in the User Font box.

**(OK) button:** Closes the Edit Font window.

### • To Edit a User Font Character

1. Click on the desired characters in the User Font box. When making a new character, click on a blank.
   The selected user font character are displayed here in 12 x 13 dots.
2. Click on ☐ or ☐ to make a character.
   ☐ and ☐ will appear alternately by clicking.
   ☐ will change into black after the character is registered in the User Font box.
3. When finishing the edit, click on the Save –> button.
   The edited character will be registered in the User Font box.

**Note:** The new character has not been saved in the configuration data at this point. After closing the Edit Font window, be sure to return to the Camera Title window and click on the SAVE (Save Exit) button.

### • To Copy a Character

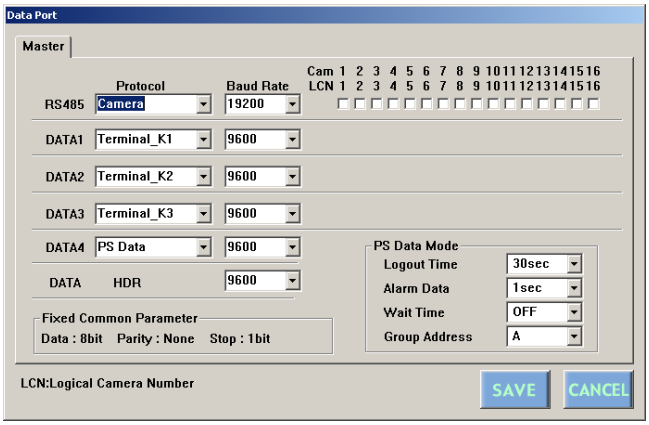
1. Click on the desired character in the User Font box.
2. Click on the Copy button.
3. Click on the blank in the User Font box to copy the character.
4. Click the Paste button.

### • To Delete a Character

1. Click on the desired character in the User Font box.
2. Click on the Delete button.
3. Click on the Save –> button.

## ■ Data Port

This window configures the parameters of each data port (RS485, DATA 1 to 4 and DATA HDR port): the protocol, the baud rate (communication speed), and the connected cameras.




## ● How to Display

To display this window, click on the (Data Port) button in the main window (p. 80).

## ● Parameters (Normal Connection)

### • Protocol

Select “Camera” when an RS-485 camera is connected to the data port. Select “Terminal_K1 to 4” when the system controller is connected to the data port.
Select PS·Data when the system controller is connected to the DATA 4 port via the PS·Data protocol. PS·Data mode will appear in the window.

**Notes:**

- The baud rate of DATA HDR is the same as that of PSD. When you select PSD for DATA 4, DATA HDR and its baud rate are displayed in gray and not configurable. When you select CU360C for DATA 4, DATA HDR and its baud rate are configurable.
- Terminal_K1 to 4 can be assigned to only one port.

### • Baud Rate

Select the desired baud rate (communication speed). 4800, 9600 or 19200 bps is selectable.

### • Cam 1 to 16

Select the camera(s) connected to the RS-485 daisy chain. Data 1 to 3 are connectable to either of cameras and system controllers.
When connecting cameras to these ports, select the connected camera number(s).

### • PS·Data mode

This stands for the PS·Data parameters of the DATA 4 port.

**Logout Time:** Select the desired operable time before logout. OFF, 30, 60, 90 or 120 sec is available.
The factory default setting is 30 sec.

**Note:** Select OFF when only PS·Data system controllers are connected.

**Alarm Data:** Select the desired time to accept an alarm input signal. OFF, 0, 1 or 5 sec is available.
The factory default setting is 1 sec.

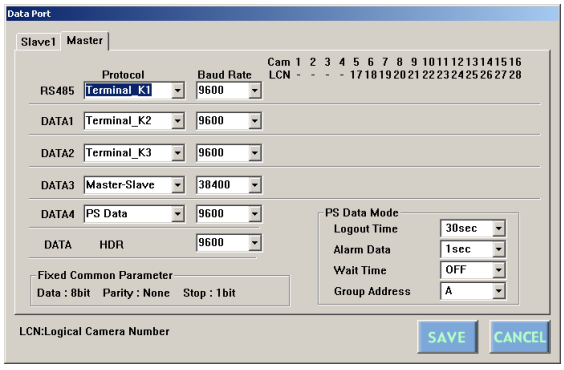
**Wait Time:** Select the desired wait time to transmit an alarm output signal. OFF, 100msec, 200m sec, 400m sec or 1 sec is available.
The factory default setting is OFF.

**Group Address:** This parameter is only for confirmation. Leave as it is.

### • Fixed Common Parameter Group

The data bit (8 bit), parity (none), and stop bit (1 bit) are displayed. These parameters are fixed.

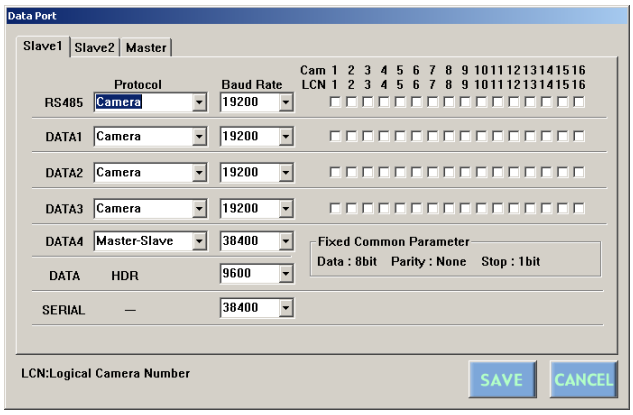
## ● Parameters (Master)




DATA 3 is used for master-slave connection. Protocol is fixed to Master-Slave and Baud Rate is fixed to 38400.

**Note:** Other parameters are same as normal connection.

## ● Parameters (Slave 1 to 4)




The following are different from normal connection and Master.

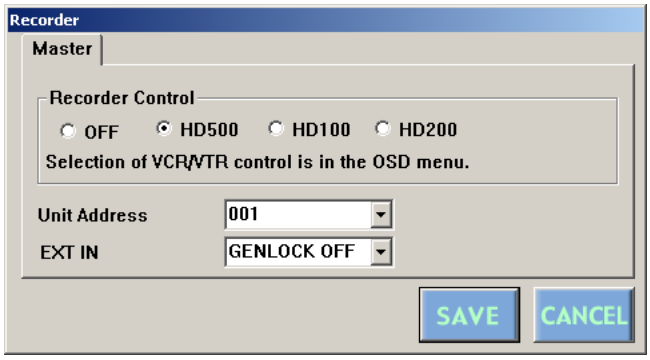
- RS485, DATA1 to 3 is fixed to Camera.
- DATA 4 is used for master-slave connection. Protocol is fixed to Master-Slave and Baud Rate is fixed to 38400.
- When VCR is selected for 600 RECORDER in SETUP MENU (refer to p. 71), the Protocol of SERIAL is fixed to VCR. This parameter is activated when using a Pananonic time-lapse VCR.
- When Protocol of SERIAL is displayed as "– – –", Baud Rate is set to the baud rate for firmware update. Refer to p. 58 for details.

**SAVE (Save Exit) button**
Saves the configuration and closes the Data Port window.

**CANCEL (Cancel Exit) button**
Cancels the configuration and closes the Data Port window.

# ■ Recorder

This window configures the recorder setting parameters: whether the multiplexer board is installed in the unit, what is the type of the recorder, what is the recorder unit address, and whether the gen-lock is activated.




## ● How to Display

To display this window, click on the HD (Recorder Mode) button in the main window (p. 80).

## ● Parameters

### • Recorder Control

Click on the desired radio button to determine the recorder type.

**OFF:** Select this when no recorder is connected to the unit.
**HD500:** Select this when a WJ-HD500 Series recorder is connected to the unit.
**HD100:** Select this when a WJ-HD100 Series recorder is connected to the unit. MUX
**HD200:** Select this when a WJ-HD200 Series recorder is connected to the unit.
**VCR/VTR:** Select this when a time-lapse VCR is connected to the unit. MUX

**Note:** VCR/VTR is selectable only in the Slave tabs.

The factory default setting is HD500.

### • Unit Address

This parameter is configurable only when HD100, HD200 or HD500 is selected in the Recorder window. When OFF is selected there, this parameter is displayed in gray and not configurable. 1 to 99 is selectable. The factory default setting is 1.

**Note:** If you connect a time-lapse VCR to the Master unit, do the recorder setting in SETUP MENU. (Refer to RECORDER in p. 71.) If you connect a time-lapse VCR to Slave units, recorder setting is available in WJ-SX150A Administrator Console.

### • EXT IN

This stands for the setting of the EXT IN connector at the unit's rear panel.

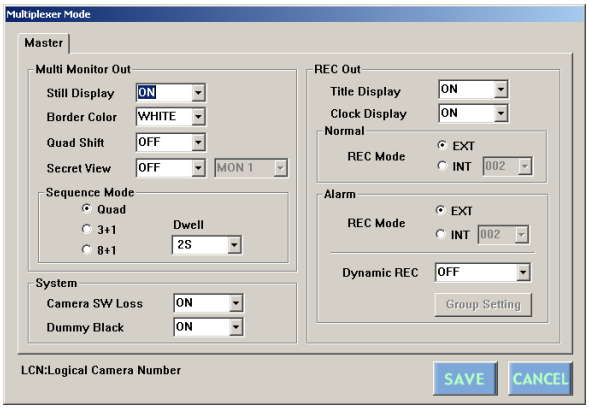
**GEN LOCK ON:** Select this mode to gen-lock the unit with the recorder.

**GEN LOCK OFF:** Select this mode if the asynchronous unit is connected to the recorder.

**Notes:**

- If GENLOCK ON is selected, the playback images cannot be displayed on the monitors which are connected to the connectors MONITOR OUT 1 to 4. Confirm the images on those which are connected to the recorder.
- If GENLOCK OFF is selected, the maximum rate recording becomes unavailable for WJ-HD500 Series.
- To use WJ-HD100 Series or a time-lapse VCR, the Multiplexer board should be installed inside the unit.
- When the master-slave connection is applied, the Slave tab will appear in the Recorder window. VCR/VTR will be selectable besides other parameters.

# ■ Multiplexer Mode MUX




## ● How to Display

To display this window, click on the Mode (Multiplexer Mode) button in the main window (p. 80.)

## ● Parameters

### • Multi Monitor Out Group

**Still Display:** Select the desired setting by clicking on the drop-down menu.

**ON:** Still picture is available during the multiscreen display.

**OFF:** Still picture is not available during the multiscreen display.

The factory default setting is ON.

**Border Color:** Select the desired setting by clicking on the drop-down menu. This setting will determine the color of the border which separates each multiscreen segment.

**WHITE:** The border will be displayed in white.

**GRAY:** The border will be displayed in gray.

**BLACK:** The border will be displayed in black.

**OFF:** No border will be displayed.

The factory default setting is WHITE.

**Quad Shift:** Select the desired setting by clicking on the drop-down menu.

**ON:** Camera images are displayed in 4 multiscreen segments (quad) and switched as follows:

4A = Page 1 of the quad (Camera 1, 2, 3 and 4)

4B = Page 2 of the quad (Camera 5, 6, 7 and 8)

4C = Page 3 of the quad (Camera 9, 10, 11 and 12)

4D = Page 4 of the quad (Camera 13, 14, 15 and 16)

**OFF:** Quad is unavailable.

The factory default setting is OFF.

**Secret View:** Select the desired setting by clicking on the drop-down menu.

**ON:** The adjoining drop-down menu becomes also active so that you can designate the desired monitor (MON 1 to 4) for the secret view function. If you designate MON 1 in the drop-down menu, black image will be displayed in a segment of multiscreen monitor, instead of the spot image of camera channel activated in MON 1.

**OFF:** Secret view function is unavailable.

The factory default setting is OFF.

**Sequence Mode:** Select the sequence type by clicking on the radio button.

**Quad:** Multiplexer sequence is activated. The monitor display will be changed as 4A → 4B → 4C → 4D.

**3+1:** Images are displayed in 4 multiscreens, and the images of Camera 4 to 16 are displayed in the sequence mode, at the right bottom of the monitor. The images of Camera 1 to 3 are fixed. (Refer to the left-side illustration in p. 20.)

**8+1:** Images are displayed in 9 multiscreens, and the images of Camera 9 to 16 are displayed in the sequence mode, at the right bottom of the monitor. The images of Camera 1 to 8 are fixed. (Refer to the right-side illustration in p. 20.)

The factory default setting is Quad.

**Dwell:** The dwell time of the selected sequence mode is selectable. 2S to 30S is available.

The factory default setting is 2S.

## • REC OUT Group

**Title Display:** Select the desired setting by clicking on the drop-down menu.

**ON:** The camera title is displayed on the recorded image.

**OFF:** The camera title is not displayed on the recorded image.

The factory default setting is ON.

**Clock Display**: Select the desired setting by clicking on the drop-down menu.

**ON:** The date and time are displayed on the recorded image.

**OFF:** The date and time are not displayed on the recorded image.

The factory default setting is ON.

**Normal Group**

**REC Mode:** Select the desired setting by clicking on the radio button.

**EXT:** Select this to gen-lock the unit during the normal recording.

**INT:** Select this if the asynchronous unit is connected to the unit. When it is activated, the drop-down menu becomes also active so that you can select the desired normal recording rate. 002, 004 to 255 (field) are selectable.

The factory default setting is EXT.

**Alarm Group**

**REC Mode:** Select the desired setting by clicking on the radio button.

**EXT:** Select this to gen-lock the unit during the alarm recording.

**INT:** Select this if the asynchronous unit is connected to the unit. When it is activated, the drop-down menu becomes also active so that you can select the desired normal recording rate. 002, 004 to 128 (field) are selectable.

The factory default setting is EXT.

**DYNAMIC REC:** Select the desired setting by clicking on the drop-down menu.

**ALM-PRI:** Select this to give recording priority to the camera channel with the alarm input.

**ALM-ONLY:** Select this to record the images from the alarm-associated camera channel.

**GROUP:** Select this to give recording priority to a group of up to 4 camera channels associated to the alarm input. When you select this, the Group Setting button becomes active. By pressing the button, the Mux Alarm Group window will be displayed so that you can configure the Group 1 to 16 parameters. (Refer to p. 100 Mux Alarm Group.)

**OFF:** Select this to deactivate the alarm priority mode.

The factory default setting is OFF.

## • System Group

**Camera SW Loss:** Select the desired setting by clicking on the drop-down menu.

**ON:** “CAM SW LOSS” will blink on the associated monitor when loss of the camera switching pulse is detected.

**OFF:** “CAM SW LOSS will not appear on the monitor.

The factory default setting is ON.

**Dummy Black:** Select the desired setting by clicking on the drop-down menu.

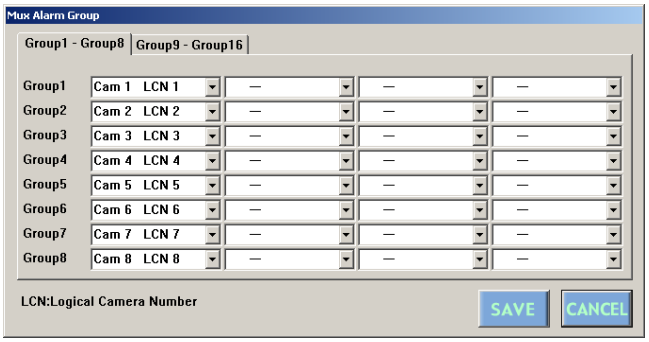
**ON:** The black image will be displayed for a camera channel that is not connected to the camera.

**OFF:** The camera channel will be skipped in the sequence/spot mode.

The factory default setting is ON.

**(Save Exit) button**
Saves the configuration and closes the Multiplexer Mode window.
**(Cancel Exit) button**
Cancels the configuration and closes the Multiplexer Mode window.

## ● Mux Alarm Group

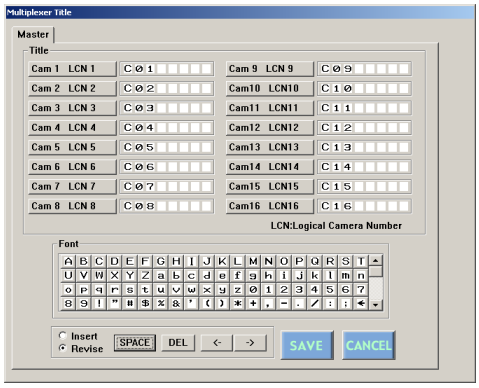



This is a submenu of the Multiplexer window. In this window, up to 4 cameras are given recording priority for each alarm input.

- Click a drop-down menu to assign the camera numbers (1 to 16) to each alarm group (Group1 to 16). The factory default setting is same as the illustration.
- To configure Group 9 to 16, click on the Group 9 – Group 16 tab.

**(Save Exit) button**
Saves the configuration and closes the Mux Alarm Group window.
**(Cancel Exit) button**
Cancels the configuration and closes the Mux Alarm Group window.

# ■ Multiplexer Title MUX




## ● How to Display

To display this window, click on the MUX Title (Multiplexer Title) button in the main window (p. 80.)

## ● Parameters

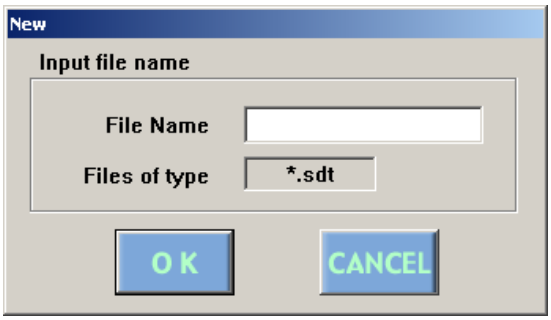
The factory default settings are same as the illustration.
To edit the desired camera's title, click on the associated button (Cam 1 to Cam 16).
The subsequent editing procedure is the same as Camera Title. (Refer to p.94.)

**Notes:**
The characters available here are the following:
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrs
t u v w x y z 0 1 2 3 4 5 6 7 8 9 ! " # $ % & ' ( ) * + , -
./:;¨=Æ?oÄÜÖÆÑÃØäüöæñãø

- Up to 8 alphanumeric characters are available for the Multiplexer board camera title.
- You cannot edit a user font character.

**(Save Exit) button**
Saves the configuration and closes the Multiplexer Title window.
**(Cancel Exit) button**
Cancels the configuration and closes the Multiplexer Title window.

# ■ New




## ● How to Display

To display this window, click on the (New) button in the main window (p. 80).

## ● Parameters

This window is used for new file creation.
**File Name:** Enter a desired name for a new file.
**Files of type:** The file extension is displayed here.

**(OK) button**
Saves the configuration and closes the New window.
**(Cancel Exit) button**
Saves the configuration and closes the New window.

# ■ Select Setup Data File

The setup file is selectable by pressing this button.
Refer to the operating instructions of Windows® for details on how to copy a data.

## ● How to Display

To display this window, click on the (File Open) button in the main window (p. 80).

## ● Parameters

The location, name and type of the setup file appear in this window.

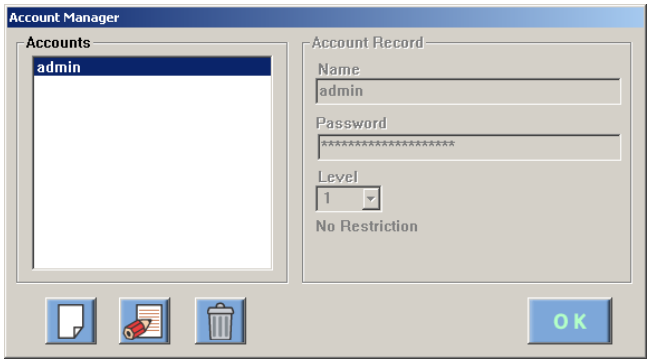
**File Name Input Area:** Displays the selected file's name.
**Open button:** Opens the selected file.
**Cancel button:** Cancels the operation and closes the Select Setup Data File dialog box.

**(OK) button**
Saves the configuration and closes the New window.
**(Cancel Exit) button**
Saves the configuration and closes the New window.

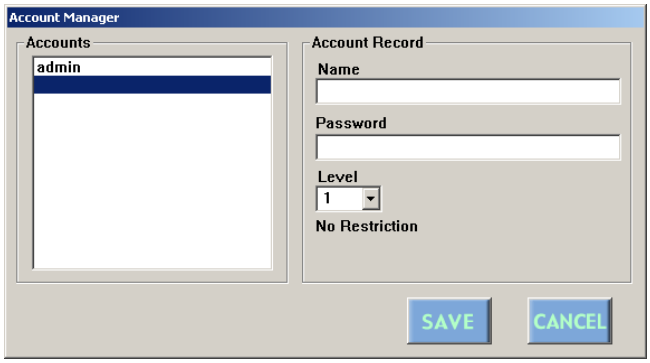
# ■ Account Manager

This window configures the parameters of the operators who can control WJ-SX150A Administrator Console: the registration, edit and deletion of an operator.

**The window soon after opening**




**The window during the edit**




## ● How to Display

To display this window, click on the (Account Manager) button in the main window (p. 80).

**Note:** Register at least one operator with level 1. If there is no level 1 operator, the configuration of WJ-SX150A Administrator Console will become impossible.

## ● Parameters

### • Accounts Group

The registered operator names appears. To display the operator information in the Account Record group, click on the name.
You can configure up to 16 account records.

### • Account Record Group

**Name:** The operator name is displayed.
**Password:** The password is displayed as "*****". The entered password is displayed here during the edit.
**Level:** Select the operator level.

**(OK) button**
Closes the Account Manager window.

**(Add Account) button**
To register a new operator, click on this button. The Registration window will appear.

**(EDIT) button:** To configure the operator information, click on this button.

**(DELETE) button**
To delete the operator selected in the Accounts group, click on this button.

**(Save Exit) button**
Saves the configuration and closes the Account Manager window.

**(Cancel Exit) button**
Cancels the configuration and closes the Account Manager window.

## ● Edit Account Manager

**Add a Registration Operator**

1. Click on the button.
2. Enter the name in the Name box and the password in the Password box.
   **Name:** Up to 20 alphanumeric characters
   **Password:** Up to 20 alphanumeric characters
3. Click on the ▼ button to select the level.
4. Click on the (Save exit) button.
   The configuration will be saved and the Registration window will close.
   To cancel the configuration, click on the (Cancel exit) button.
   **Note:** You can register up to 16 accounts (operators).

**Edit a Registration Operator**

1. Click on the registration operator's name in the Accounts group.
2. Click on the (EDIT) button.
3. Edit the desired parameters.
4. Click on the (Save exit) button.
   The configuration will be saved and the Registration window will close.
   To cancel the configuration, click on the (Cancel exit) button.

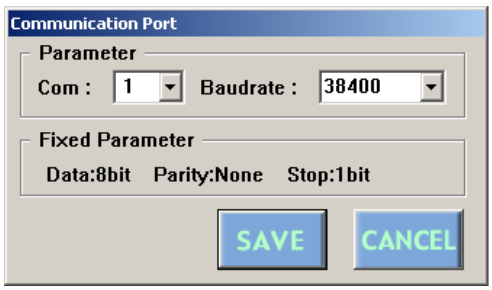
**Delete a Registration Operator**

1. Click on the registration operator's name in the Accounts group.
2. Click on the (Delete) button.
3. Click on the (Save exit) button.

**Note:** If deleting all level 1 operators, the configuration of WJ-SX150A Administrator Console will become impossible.

# ■ Communication Port

This window configures the PC's usable communication port number and its baud rate (communication speed).




## ● How to Display

To display this window, click on the (Communication port) button in the main window (p. 80).

## ● Parameters

### • Parameter Group

**Com:** Select the PC's communication port for the connection to the unit.

**Baud Rate:** Select the desired baud rate (communication speed). 4800, 9600, 19200 or 38400 bps is selectable.

The factory default setting is 38400 bps.

### • Fixed Parameter Group

The data bit (8 bit), parity (none), and stop bit (1 bit) are displayed.

**Note:** These parameters are fixed.

**(Save Exit) button**
Saves the configuration and closes the Communication Port window.

**(Cancel Exit) button**
Cancels the configuration and closes the Communication Port window.

# OPERATING PROCEDURES (TERMINAL MODE)

# LOG-IN AND LOG-OUT

Before starting the following procedures, all system components must be turned on.
The following procedures are applicable when the system controller is connected to the unit.

## ■ Log-in

This operation is skipped when the auto log-in is set to ON. (Refer to p. 92.)

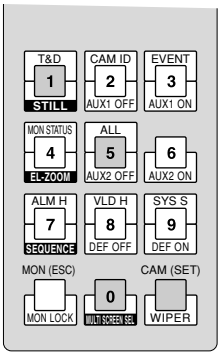
1. Turn on the power switches of all system components.
   The OPERATE indicator will light up.
2. To turn on the power of the system controller, connect the AC adapter to the AC outlet.
   The LINK indicator lights up and "NO USER" appears on the LED display of the system controller.




3. To select your registered operator ID number (1 to 16, up to 2 digits), press the numeric buttons, then press the CAM (SET) button.
   The underline appears on the LED display of the controller.
   The factory default setting is 150.






4. To select your registered password (up to 5 digits), press the numeric buttons, then press the CAM (SET) button.
   The factory default setting is 150.
   If the operator ID and password are correct, "READY" will appear on the LED display.






**Note:** If an operator ID or password error occurs, the PROHIBITED indicator on the controller will blink and "NO ACC" will blink on the LED display for about 3 seconds. Then "NO USER" appears on the LED display. Return to Step 3 and select your operator ID.







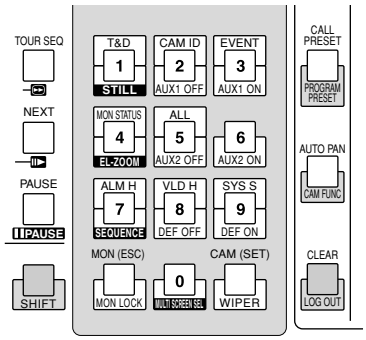
**Note:** If the auto log-in is set to ON, any operator can login automatically. After the controller is turned on, "AUTO" appears on the LED display for approximately 2 seconds, then "READY" automatically appears.

## ■ Log-out

This operation is skipped when the auto log-out is set to ON.
This function is used when an operator leaves the controller or no longer requires access to the system.

1. To logout from the system press the CLEAR button while holding down the SHIFT button.
   "NO USER" appears on the LED display of the controller.




**Notes:**

- If you want to save the power consumption, disconnect the PC plug from the controller, and remove the AC adapter from the AC outlet.
- If the auto log-out is set to ON, any operator can logout automatically if no operation takes place for a specific time. "NO USER" automatically appears on the LED display.
- The time to logout is configurable through WJ-SX150A Administrator Console. [Refer to p. 92 Auto Login/Logout (Auto Log-in/Log-out).]

## ■ Auto Log-in

If the auto log-in is set to ON, any operator can login automatically. After the controller is turned on, "AUTO" appears on the LED display for approximately 2 seconds, then "READY" automatically appears.
Auto log-in is configurable through WJ-SX150A Administrator Console. [Refer to p. 92 Auto Login/Logout (Auto Log-in/Log-out).]




## ■ Auto Log-out

If the auto log-out is set to ON and no operation takes place for a specific time, any operator can logout automatically. "NO USER" automatically appears on the LED display.




Auto log-out and the time to logout are configurable through WJ-SX150A Administrator Console. [Refer to p. 92 Auto Login/Logout (Auto Log-in/Log-out).]

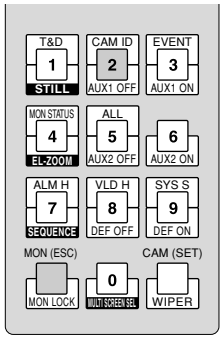
# MONITOR SELECTION AND CAMERA SELECTION

After the log-in procedure, the following operations are available to control the system.
The operation begins with selecting a monitor, then the selected camera appears the active monitor.

## ■ Monitor Selection

1. To select the desired monitor number (1 to 4), press the numeric button.
2. Press the MON (ESC) button to execute the selection.
   The MONITOR indicator on the controller will light up and the selected monitor number will appear on the LED display of the controller.






3. If the selected monitor number is not valid, the PROHIBITED indicator lights up and the number on the LED display will blink for approximately 3 seconds.
   Return to Step 1 and select a new monitor number.

   **Note:** The PROHIBITED indicator will blink if an operator with higher priority is controlling the monitor.Control of the same monitor is denied to an operator with lower priority.

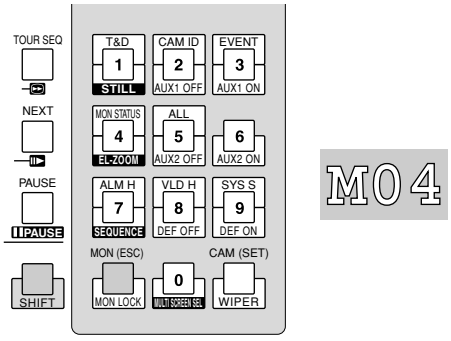
## ■ Priority Lock

### ● Applying Priority Lock

1. Select the desired monitor. (Refer to Monitor Selection).

2. Press the MON (ESC) button while holding down the SHIFT button to toggle the priority lock mode on and off on the active monitor.
   If the priority lock mode is selected, the monitor number will inversely appear on the active monitor as shown in the figure.

**Note:** This function will prevent operators with lower priority from gaining control of a monitor.
However, higher or equal priority operators may still gain control of the monitor.



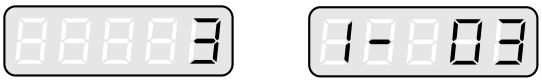

### ● Releasing Priority Lock

1. Select the desired monitor. (Refer to Monitor Selection.)

2. Press the MON (ESC) button while holding down the SHIFT button to release the priority lock mode.
   The monitor number returns to the normal display on the active monitor.

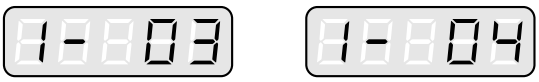
## ■ Camera Selection

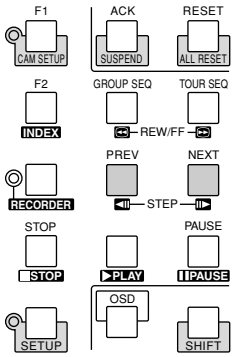
1. Select the desired monitor. (Refer to p. 106 Monitor Selection.)
2. Press the numeric buttons to select the desired camera number (1 to 99).
3. Press the CAM (SET) button.
   The selected camera's image will appear on the active monitor. The CAMERA indicator will light up and the selected camera number will appear on the LED display on the controller.




**Note:** If you select a wrong number, press the CLEAR button to clear the input.

4. If the selected camera number is not valid, the PROHIBITED indicator and the number on the LED display will blink for about 3 seconds.
   Return to Step 2 and select a new camera number.
5. To replace the currently selected camera with the next higher-numbered camera , press the NEXT button.
6. To replace the currently selected camera with the next lower-numbered camera, press the PREV button.




**Note:** The PROHIBITED indicator will light up, if the camera is selected by an operator with higher priority. Control of the same camera is denied to an operator with lower priority.

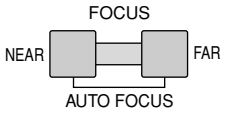
Buttons and control for cameras or camera site accessories are located on the right side of the front panel of the system controller.
Included are zoom control, focus control, iris control, preset and pan/tilt controls.
Normally, combination cameras equipped with the specific feature or a WV-RC100 or WV-RC150 Receiver are required to utilize these functions.
**Note:** Refer to the cameras' operating instructions whether to confirm that each function is available.

## ■ Lens Control

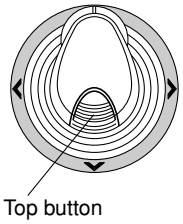
This function is available when specified lens, with motorized zoom/ focus functions, is mounted on the camera, and the lens selection (DC/VIDEO) on the camera is set to DC.

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

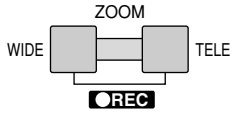
2. Press the FOCUS NEAR/FAR buttons while watching the monitor. The lens focus is adjusted to obtain a sharply focused image.
   To set the lens focus automatically, press these buttons simultaneously.



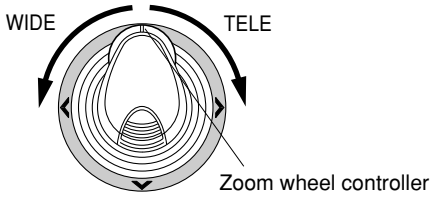

   Pressing the top button of WV-CU360CJ can also set the lens focus automatically.



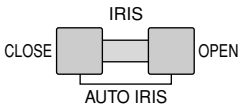

3. Press the ZOOM WIDE/TELE buttons while watching the monitor. The lens iris is adjusted to obtain the desired image.
   Press the TELE button to bring an object optically closer. Press the WIDE button to widen the scene optically.




   Moving the zoom wheel controller of WV-CU360CJ can also adjust the lens zoom.




4. Press the IRIS CLOSE/OPEN buttons to close/open the lens iris. The lens iris is adjusted by these buttons to obtain the proper image exposure.



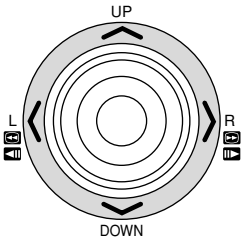

   To reset to the factory default setting, press these buttons simultaneously.

## ■ Pan/Tilt Control

### ● Manual Operation

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

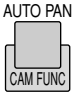
2. Move the joystick to move the pan/tilt head towards the desired direction.




### ● Auto Panning

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. To activate the auto panning function of the selected camera, press the AUTO PAN button.




3. To cancel the auto panning function, move the joystick.

## ■ Program Preset Position

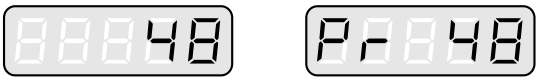
1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

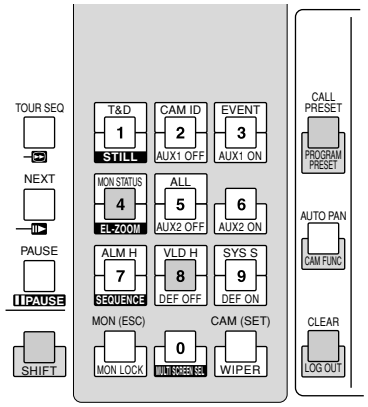
2. To move the camera to the position to be preset, move the joystick and press the lens control buttons.

3. To select the desired preset position number, press the numeric buttons. (1 to 64)

4. When you have selected a wrong number, press the CLEAR button to clear the numeric input.

5. Press the CALL PRESET button while holding down the SHIFT button to save a preset position of the selected camera.




**Notes:**

- If the entered position number has stored the previous preset position, it will be overwritten by the new one.
- SETUP MENU and WJ-SX150A Administrator Console can configure each operator's pan/tilt control. (Refer to p. 76 OPERATOR REGISTRATION or p. 90 Operator Registration.)

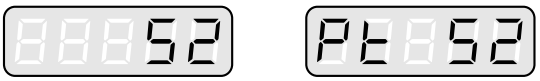
## ■ Call Preset Position

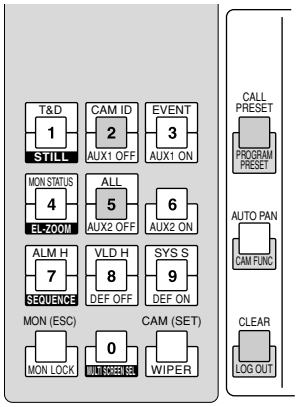
1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. To select the desired preset position number, press the numeric buttons. (1 to 64)

3. When you have selected a wrong number, press the CLEAR button to clear the numeric input.

4. Press the CALL PRESET button to move to the preset position of the selected camera on the active monitor.



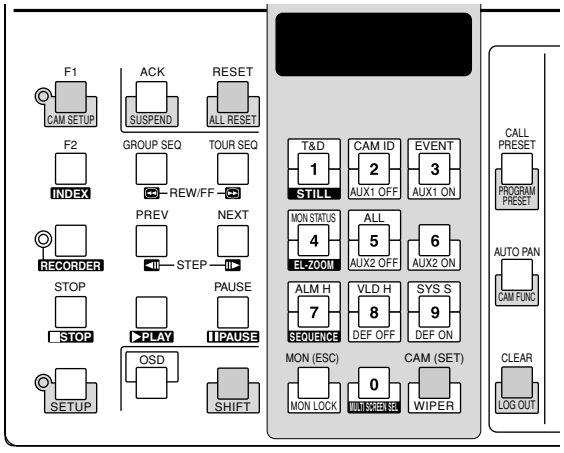

**Notes:**

- To use the above function, you must set the preset position number for the camera.
- If you press no numeric buttons or the button 0 in Step 2, the camera will move to the home position.

## ■ Camera Setup

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the F1 button while holding down the SHIFT button.
   The CAM SETUP indicator on the controller will light up and the camera's SETUP MENU will appear on the active monitor.




3. To select the desired item in the menu, move the joystick to ▼ or ▲. To select the desired parameter (or mode) in the menu, move the joystick to ◀ or ▶.
4. To execute the currently highlighted selection and to enter a submenu of SETUP MENU, press the CAM (SET) button.
5. To leave from the currently selected menu and to return to the previous page of the menu, press the MON (ESC) button.
6. Move the cursor to SPECIAL on the camera's setup menu, and press numeric buttons **4** and **6** simultaneously for 2 seconds or more to display the special menu.
7. Move the cursor to CAMERA RESET on the camera's setup menu, and press buttons **4**, **5** and **6** simultaneously to reset all the functions to the defaults.

   **Notes:**
   - Refer to the operating instructions of the selected camera for details.
   - Move the joystick while holding down the SHIFT button to move the camera smoothly for presetting the positions in the camera's SETUP MENU.

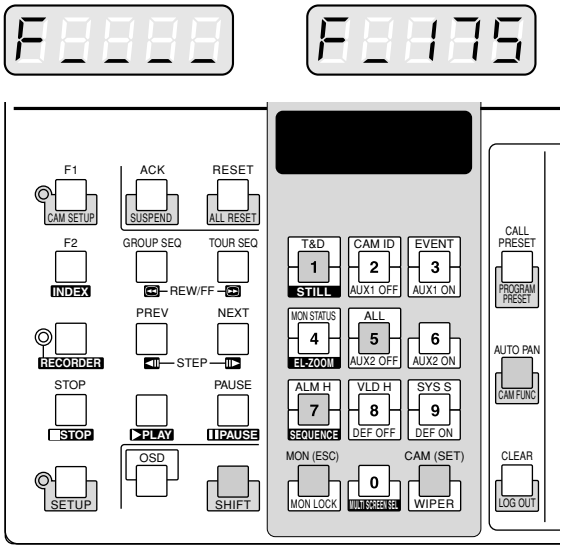
8. To close the camera's SETUP MENU, press the F1 button while holding down the SHIFT button.
   The CAM SETUP indicator goes off.

## ■ Camera Function (Shortcut Function)

The following function is available only when specified cameras with the camera function feature are used.
This function enables executing camera functions via a shortcut.

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the AUTO PAN button while holding down the SHIFT button.
   "F_ _ _ _" will appear on the LED display of the controller as shown in the figure.




3. Press the numeric buttons to select an assigned function number, then press the CAM (SET) button.
   For example, enter 175 for AGC ON.
   The selected function will be executed on the active monitor.

   **Notes:**
   - When you select a wrong number, press the CLEAR button to clear the numeric input.
   - Refer to the cameras' operating instructions for details on available shortcuts.

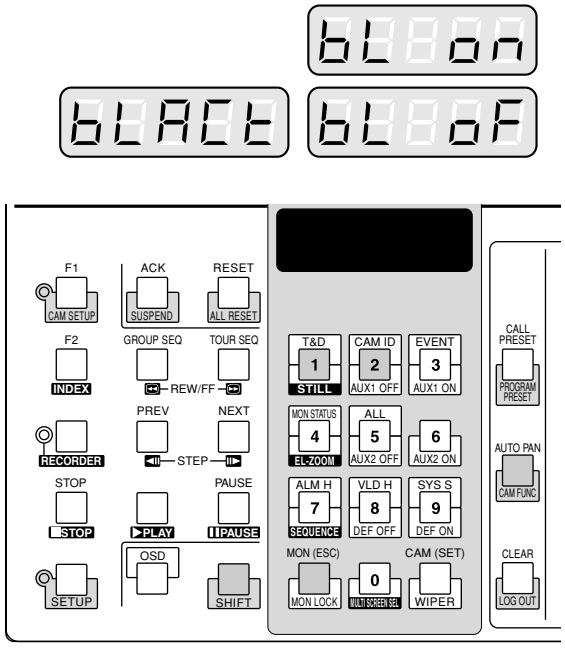
4. To exit from the mode, press the MON (ESC) button then press the AUTO PAN button while pressing the SHIFT button.

## ■ Changing to Black and White Images

This function gets the clear camera images on the monitor while shooting the objects under low light conditions.

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the AUTO PAN button two times while holding down the SHIFT button.
   "BLACK (black)" will appear on the LED display of the controller as shown in the figure.




3. Press the button 1 to change the image from the color mode to the black and white mode on the active monitor.
   "BL ON (BLACK ON)" appears on the LED display to indicate the selected mode.

4. Press the button 2 to change the black and white image to the color image on the active monitor.
   "BL OF (BLACK OFF)" appears on the LED display to indicate the selected mode.

5. Press the MON (ESC) button to exit from the mode.

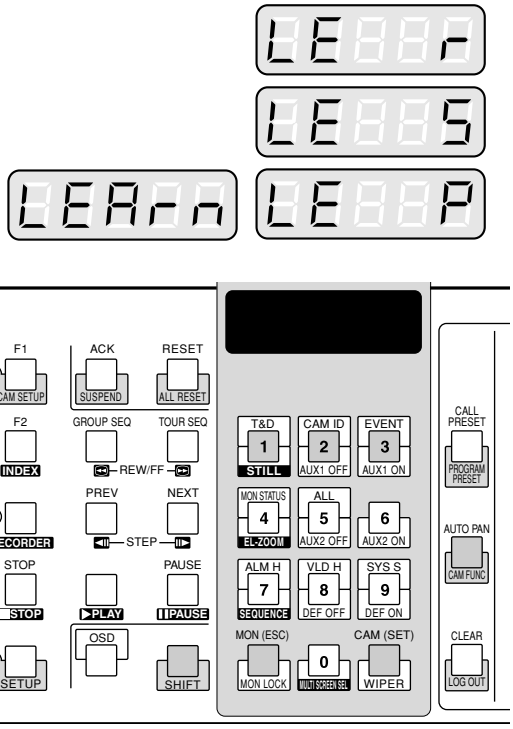
   **Note:** When the black and white parameter is set to AUTO in the camera's SETUP MENU, this function is disabled.

## ■ Patrol Learn and Play

A routine of manual operations can be stored for a specific time and later reproduced repetitively.

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the AUTO PAN button three times while holding down the SHIFT button.
   "LEARN" will appear on the LED display of the controller as shown in the figure.




3. To save the patrol sequence, follow the procedure below.
   ① Press the button 2, then press the CAM (SET) button.
   "LE r" appears on the LED display.
   ② Operate the camera manually.
   ③ Press the button 3.
   The operation data is saved and "LE S" appears on the LED display.

4. To reproduce the operation data, follow the procedure below.
   ① Press the button 1.
   "LE P" appears on the LED display.
   ② Press the button 3.
   The reproduction is ended.

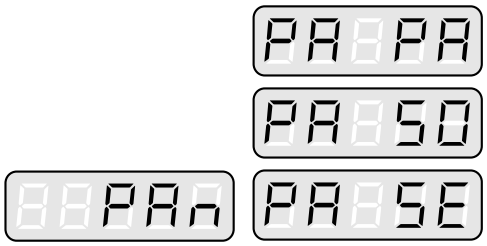
5. To exit from the mode, press the MON (ESC) button.

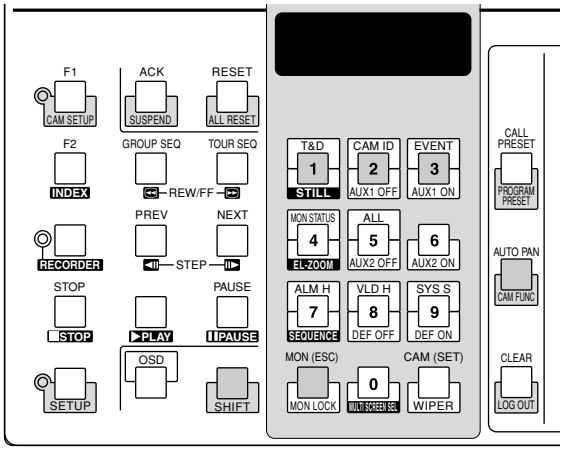
## ■ Camera Panning Function

There are three panning modes available as follows: auto pan, sort mode and sequence mode. Refer to p. 16 Camera-related Functions for details on each mode.

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the AUTO PAN button four times while holding down the SHIFT button.
   "PAN" will appear on the LED display of the controller as shown in the figure.




3. Press the assigned numeric button shown below to activate the panning function of the selected camera.
   The LED display indicates the selected mode as follows.

   **1:** Activates AUTO PAN "PA PA".
   **2:** Activates SORT PAN "PA SO".
   **3:** Activates SEQUENCE PAN "PA SE".

   **Note:** The AUTO MODE parameter previously set in the camera's SETUP MENU will be automatically replaced to the activated function parameter.

4. To exit from the mode, press the MON (ESC) button, then press the AUTO PAN button while holding down the SHIFT button.

# CAMERA SITE ACCESSORIES CONTROL

## ■ Receiver Control

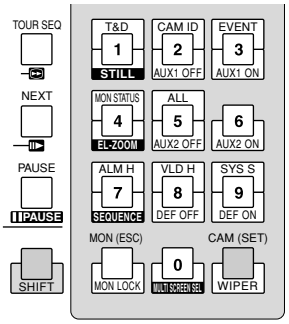
The following functions are available only when the receivers are included in the system and the specified camera housing is installed.

### ● Camera Housing Control

**Wiper Control**

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the CAM (SET) button while holding down the SHIFT button to turn on the housing wiper of the camera until buttons are released.

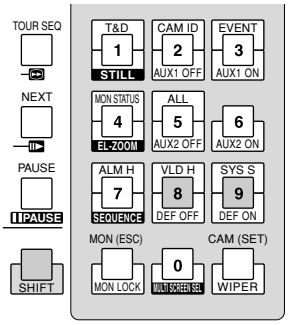



**Defroster Control**

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the button 9 while holding down the SHIFT button to turn on the housing defroster of the camera.

3. To turn off the defroster, press the button 8 while holding down the SHIFT button.

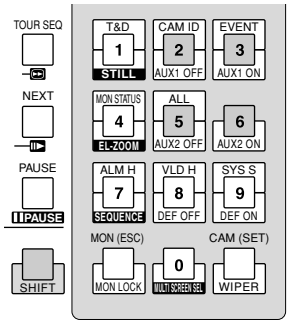



### ● Auxiliary Control

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. Press the button 3 while holding down the SHIFT button to turn on the user's auxiliary switch 1 of the receiver. Press the button 2 while holding down the SHIFT button to turn off the user's auxiliary switch 1 of the receiver.

3. Press the button 6 while holding down the SHIFT button to turn on the user's auxiliary switch 2 of the receiver. Press the button 5 while holding down the SHIFT button to turn off the user's auxiliary switch 2 of the receiver.



## ■ Tour Sequence

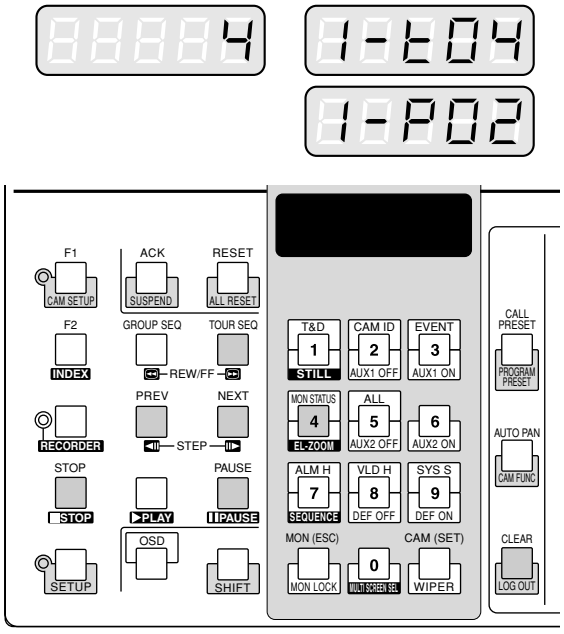
The following functions are available if a tour sequence has been previously configured through SETUP MENU or WJ-SX150A Administrator Console. Any tour sequence can be assigned to any monitors.

1. Select the desired monitor and camera. (Refer to p. 106 Monitor Selection and p. 107 Camera Selection.)

2. To select the desired tour sequence number, press the numeric buttons.

3. When you have selected a wrong number, press the CLEAR button to clear the numeric input.

4. Press the TOUR SEQ button to run the tour sequence in the forward direction on the active monitor.




5. Press the PAUSE button to pause a tour sequence on the active monitor.
   The "P" sign (indicating the pause status) is displayed at the tour sequence number on the active monitor, and a camera number currently selected appears on the LED display.

6. Press the PAUSE button to restart a tour sequence forward from the next step that was previously paused by pressing the PAUSE button.

7. Press the NEXT button to move the sequence one frame to the next step from the step that was previously paused by pressing the PAUSE button.

8. Press the PREV button to move the sequence one frame to the previous step from the step that was previously paused by pressing the PAUSE button.
9. Press the STOP button to stop a tour sequence on the active monitor and return to spot monitoring.

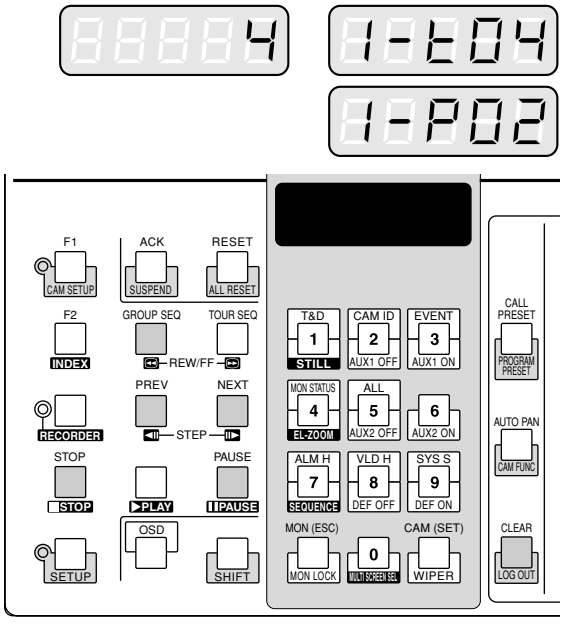
## ■ Group Sequence

The following function is available only if a group sequence has been previously established in WJ-SX150A Administrator Console.
As described earlier, a group sequence determines the assignment of monitors and cameras. Therefore, monitor selection is not required.

1. Press the numeric buttons to select a desired group sequence number.

2. When you have selected a wrong number, press the CLEAR button to clear the numeric input.

3. Press the GROUP SEQ button to run a group sequence forward on the assigned monitors.



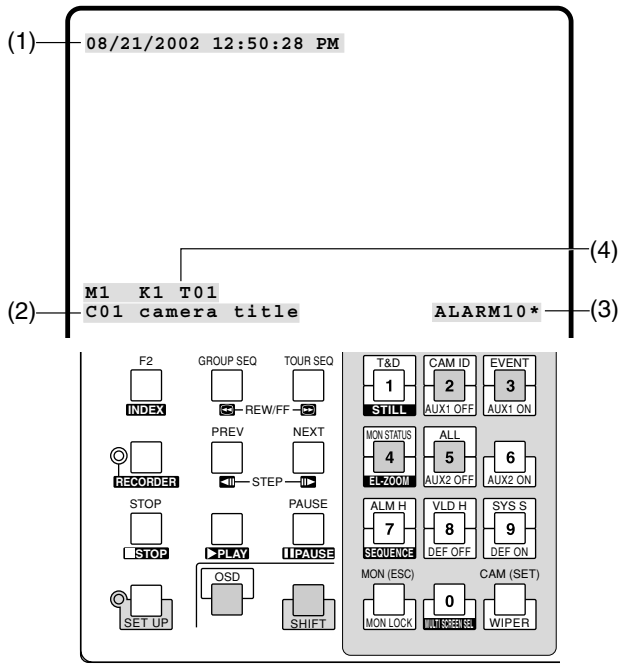

4. Press the PAUSE, NEXT or PREV button to operate the group sequence. Refer to Step 5 to 8 of Tour Sequence in this page for how to use these buttons.

5. To stop the sequence, select one of the monitors that are being run on the selected group sequence, then press the STOP button.

**Note:** If an alarm is activated during a sequence pause, the sequence runs again after the unit recovers from the alarm mode.

## ■ On-screen Display (OSD) Control

The procedure described below lets you determine the display parameters, such as camera title, clock and status, on and off on the active monitor screen.
Before controlling each item, monitor selection is necessary. (Refer to p. 106 Monitor Selection.)




### ● Displaying the Clock

Toggle the button 1 while holding down the OSD button.
(1) will appear/disappear on/from the active monitor.

### ● Displaying the Camera Title

Toggle the button 2 while holding down the OSD button.
(2) will appear/disappear on/from the active monitor.

### ● Displaying the Event

Toggle the button 3 while holding down the OSD button.
(3) will appear/disappear on/from the active monitor.

### ● Displaying the Monitor Status*

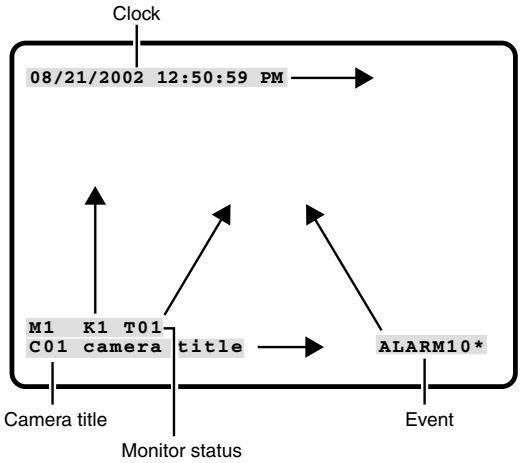
Toggle the button 4 while holding down the OSD button.
(4)* will appear/disappear on/from the active monitor.
* Monitor number, system controller name, tour number and recorder number

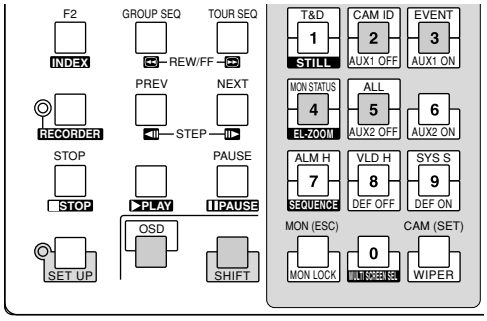
### ● Displaying All the Items

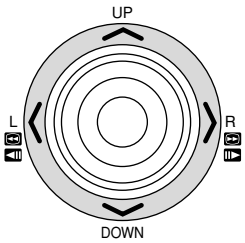
Toggle the button 5 while holding down the OSD button.
(1), (2), (3) and (4) will appear/disappear on/from the active monitor.

## ■ On-screen Display (OSD) Position Control

The procedure described below lets you determine the display positions, such as camera title, clock and status, on the active monitor screen.




### ● Moving the Clock Display

Move the joystick while holding down the OSD, SHIFT and 1 buttons. (1) will move to the desired direction.

## ● Moving the Camera Title Display

Move the joystick while holding down the OSD, SHIFT and 2 buttons. (2) will move to the desired direction.

## ● Moving the Event Display

Move the joystick while holding down the OSD, SHIFT and 3 buttons. (3) will move to the desired direction.

## ● Moving the Monitor Status*

Move the joystick while holding down the OSD, SHIFT and 4 buttons. (4) will move to the desired direction.
* Monitor number, controller number and monitor mode

## ● Moving All the Items

Move the joystick while holding down the OSD, SHIFT and 5 buttons. (1), (2), (3), and (4) will move to the desired direction.

# ■ System Status Table

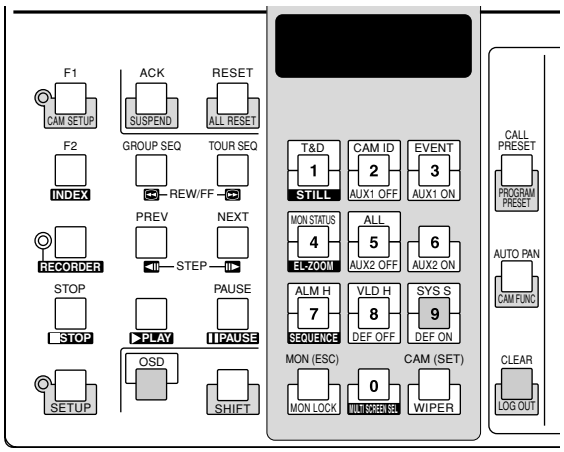
The table shows the current system status.

1. Select the desired monitor. (Refer to p. 106 Monitor Selection.)

2. Press the button 9 while holding down the OSD button. "OSD" will appear on the LED display, and the SYSTEM STATUS table will appear on the active monitor as shown in the figure.

```
                SYSTEM STATUS

MON    CAM   MODE       KB     OPE      PRI
1      01    T01        K1     12345    30
2      99    SPOT       K2     2        2
3      04    ALARM      K4     4        1
4      R1    RECORDER   PC     30       1
```




The columns in the table indicate the states as shown in the figure.

**MON:** Monitor number

**CAM:** Logical camera number (01 to 99)
Recorder number (R0 to R4)*
No number indicates no camera is selected.

**MODE:** Lists the display mode on the monitors.

- **SPOT:** Spot mode
- **Tnn:** Tour Sequence mode (nn is the tour sequence number.)
- **CAM:** Camera Setup mode
- **SET:** WJ-SX150A Setup mode
- **ALARM:** Alarm Active mode
- **ACK:** Alarm ACK mode
- **VLD H:** Video Loss History Table
- **ALM H:** Alarm History Table
- **SYS S:** System Status Table
- **RECORDER:** Recorder mode**

**KB:** Lists the system controller name (K1 to K4) or PSD.

**OPE:** Lists the operator number

**PRI:** Lists the priority number

* R0 to R4 shows the following.

| Recorder number | Recorder |
|---|---|
| R0 | Master recorder |
| R1 | Slave 1 recorder |
| R2 | Slave 2 recorder |
| R3 | Slave 3 recorder |
| R4 | Slave 4 recorder |

** When this parameter is selected, a recorder number is displayed in the CAM area.

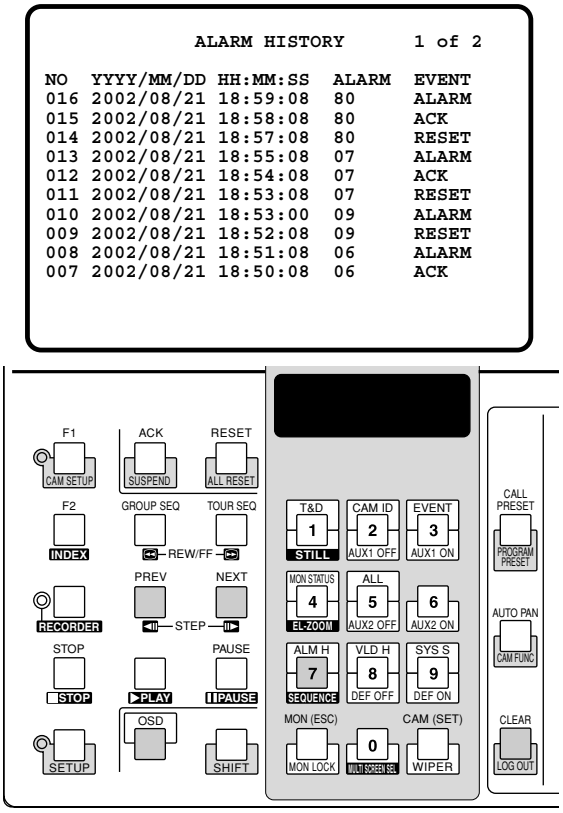
3. To exit from the mode, press the CLEAR button.

## ■ Alarm History Table

There are 100 alarm records stored in chronological order in 10 pages of tables.

1. Select the desired monitor. (Refer to p. 106 Monitor Selection.)

2. Press the button 7 while holding down the OSD button. "OSD" will appear on the LED display, and the ALARM HISTORY table will appear on the active monitor as shown in the figure.




The columns in the table indicate the states as follows:

**DATE:** Lists the date and time when the alarm state changes.
**ALARM:** Lists the alarm number (01 - 99).
**EVENT:** Lists the event when the alarm state changes.

3. Press the NEXT button to select the next page of the history, and press the PREV button to back up to the previous page.

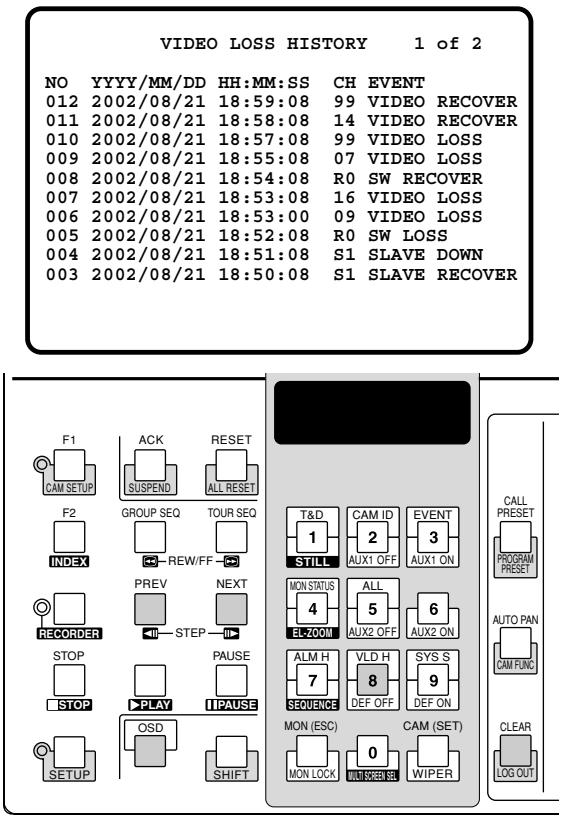
4. To exit from the mode, press the CLEAR button.

## ■ Video Loss History Table

There are 100 video loss detection records stored in chronological order in 10 pages of table.

1. Select the desired monitor. (Refer to p. 106 Monitor Selection.)

2. Press the button 8 while holding down the OSD button. "OSD" will appear on the LED display, and the VIDEO LOSS HISTORY table will appear on the active monitor as shown in the figure below.



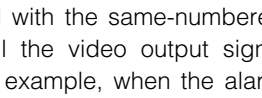

The columns in the table indicate the states as follows:

**DATE:** Lists the date and time when the video loss state changes.
**CH:** Lists logical camera number, slave unit number or recorder number that is connected to the system.
**EVENT:** Lists the event when the video loss state changes.

## ■ Alarm Mode

When alarm (sensor) is accepted, the matrix switcher's operation mode changes to the alarm mode. Then, the system operates as follows:

- The camera image (alarm image) appears on the monitor.
  In the factory default setting, the alarm inputs 1 to 16 are associated with the same-numbered camera input connectors. All the video output signals are sent to Monitor 1. For example, when the alarm (sensor) connected to the alarm input 1 becomes active, the camera input connector 1's image appears on Monitor 1.
- "ALARMnn" appears on the monitor.
  (nn is the alarm number).




- Alarm output signals are supplied from Alarm Output 1 to 4 (#10, 11, 23 and 24) of the ALARM port (25-pin D-sub connector) at the rear panel. Alarm Output 1 to 4 is associated with MONITOR OUT 1 to 4. For example, when an alarm input signal is activated on MONITOR OUT 1, the unit supplies an alarm output signal from Alarm Output 1.
- The monitor and alarm number will appear on the LED display of system controllers. At the same time, the alarm indicator will blink, the monitor indicator will light up, and the camera indicator will go out.




There are two operation mode when more than one alarm signal has been accepted by the unit that is assigned to the same monitor.

- **Sequence mode:** An alarm operation is replaced by another one after the dwell time ends.
- **Hold mode:** An initial alarm operation is continued even after another alarm input is accepted.

**Notes:**

- The association of the alarm inputs with cameras and monitors are changeable in SETUP MENU or WJ-SX150A Administrator Console. (Refer to pp. 67 and 68/ p. 89.)
- Alarm input will be automatically reset in 30 seconds. The auto-recovery time is configurable through SETUP MENU or WJ-SX150A Administrator Console.

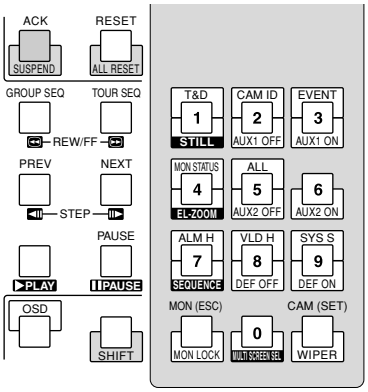
## ■ Operation during an Alarm Mode

While an alarm mode is active, the following are available from the system controller:

- Operating the camera with the alarm input (ACK)
- Resetting the alarm (RESET/ALL RESET)
- Suspending the alarm (ALM SUSPENDED)

## ■ Operation of an Alarm-related Camera (ACK)

You can operate the camera with the alarm input as follows:







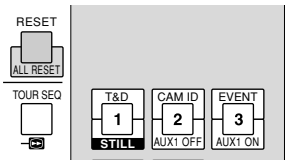
1. Select a monitor which displays "ALARM".
2. Press the ACK button.
   "ACK" will appear on the monitor with an alarm input.
   The camera with an alarm input will become operable.
3. Operate camera with the system controller.
   Pan/Tilt, zoom, focus, and iris are available.
   When selecting another monitor, "ACK" will disappear from the display. The matrix switcher system will return to the alarm mode.

## ■ Resetting the Alarm Inputs

There are two alarm reset functions:

- Alarm reset (resetting the alarm inputs per monitor)
- Alarm all reset (resetting all the alarm inputs)

### ● Alarm Reset

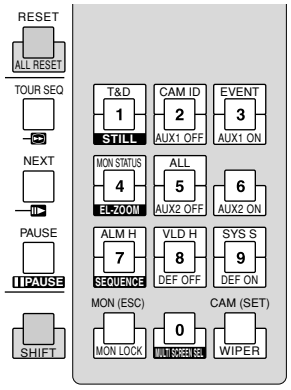



1. Select a monitor which displays "ALARM".
2. To reset the alarms, press the RESET button.
   "ALARMnn" will disappear from the selected monitor.
   When alarms have been reset from all the monitors, the LED display and indicators of system controllers will work as follows for recovery.
   - The LED display will return to the state before the alarm input.
   - The alarm indicator will go out.
   - The CAM indicator will return to the state before the alarm input.

**Note:** When more than one alarm is input and they are associated with the same monitor, they cannot be reset one by one.

### ● Alarm All Reset

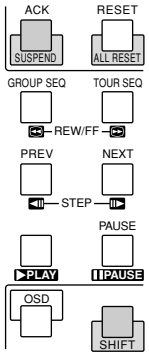
1. Press the RESET button while holding down the SHIFT button.




2. The monitor, the LED display and the indicator will change as follows:
   "ALARMnn" will disappear from all the monitor.
   The LED display will return to the state before the alarm input.
   The alarm indicator will go out.
   The CAM indicator will return to the state before the alarm input.

## ■ Suspending the Alarm Inputs

Use this function when you do not want to be disturbed by an alarm input, for example, during the setup procedures.




**ALM SUSPENDED**

1. Press the ACK/SUSPEND button while holding down the SHIFT button.
   "ALM SUSPENDED" will appear on the monitor.
2. To cancel alarm suspension, press the ACK/SUSPEND button while holding down the SHIFT button again.
   "ALM SUSPENDED" will disappear from the monitor.

**Notes:**

- An alarm continues to operate even after it is suspended.
- If you suspend an alarm while an alarm image is displayed, "ALM SUSPENDED" will not appear on the monitor. Reset the alarm, and then suspend it again.

# MULTIPLEXER OPERATIONS MUX

Multiplexer board WJ-SXB151 is an optional board.
It enables multiscreen display, electronic zooming, still picture and multiscreen sequence.
It also enables the operation of Digital Disk Recorder WJ-HD100 Series or time-lapse VCR, when connected to them.

**Note:** Before the use, it is necessary to install the Multiplexer board in the matrix switcher and configure the system through SETUP MENU and WJ-SX150A Administrator Console. [Refer to p. 32 Installing the Multiplexer Board, p. 63 WJ-SX150A SETUP MENU (OSD), and p. 79 WJ-SX150A ADMINISTRATOR CONSOLE.]

## ■ Monitoring the Camera Picture

### ● Multiscreen Segment Switching

1. Select the desired monitor. (Refer to p. 106 Monitor Selection.)

2. To select a Multiplexer, press the corresponding numeric button.

| Multiplexer board | Numeric button |
|---|---|
| Master Multiplexer board | 0 (You can skip pressing this button.) |
| Slave 1 Multiplexer board | 1 |
| Slave 2 Multiplexer board | 2 |
| Slave 3 Multiplexer board | 3 |
| Slave 4 Multiplexer board | 4 |

3. Press the RECORDER button. The system will enter the recorder mode. The indicator beside the RECORDER button will light up, and the images from the recorder are displayed on the active monitor in multiscreen segments.

4. Press the button 0 while holding down the SHIFT button. Every time you press the button, the multiscreen segment patterns are switched. (The following is the factory default setting.)
   4 (segments) → 9 → 16 → 4

5. To return to the spot display, select the desired camera.

**Note:** If you activate Quad Shift in Multiplexer Mode (refer to p. 98) window of WJ-SX150A Administrator Console, the multiscreen segment patterns can be switched as follows.
4A (Page 1 of the quad – Camera 1, 2, 3, and 4) → 4B (Page 2 - Camera 5, 6, 7 and 8) → 4C (Page 3 - Camera 9, 10, 11 and 12) → 4D (Page 4 - Camera 13, 14, 15 and 16) → 9 (segments) → 16 → 4A

### ● Multiscreen Sequence

Camera images are switched automatically in a sequence mode.
The sequence mode (QUAD, 3+1, 8+1) is configurable through WJ-SX150A Administrator Console.
(Refer to p. 99 Sequence Mode of the Multiplexer Mode window for details.)

1. Enter the recorder mode. (Refer to Multiscreen Segment Switching.)

2. Press the button 7 while holding down the SHIFT button.
   A sequence of multiscreen pictures is displayed according to the WJ-SX150A Administrator Console's configuration.

3. To cancel the sequence, press the button 0 while holding down the SHIFT button.

**Note:** The sequence can also be cancelled by selecting the desired camera. (In this case, you can automatically exit from the recorder mode.)

### ● Still Multiscreen Picture

Still pictures can also be displayed in a multiscreen.

1. Enter the recorder mode. (Refer to Multiscreen Segment Switching.)

2. Press the numeric button corresponding to the camera number.

3. Press the button 1 while holding down the SHIFT button.
   The selected camera image will change into the still picture.
   "STILL" and the camera title alternately blinks on the monitor.
4. To cancel the still picture, press the button 1 while holding down the SHIFT button again.

**Notes:**

- “STILL” does not appear when the still display is set to OFF.
- When you skip Step 2 and do Step 3, all the channels displayed in the multiscreen segments will be changed into the still pictures.

## ● Still Playback Spot Picture

The playback spot picture can be changed into the still picture.

**Note:** To use this function, you need to connect a WJ-HD100 Series recorder or time-lapse VCR to the unit.

1. Enter the recorder mode. (Refer to Multiscreen Segment Switching.)

2. Press the PLAY button. (Refer to p. 131 Normal Playback.) The system will enter the playback mode.

3. Select a camera channel by pressing a numeric button and then pressing the CAM (SET) button. The selected camera image will be displayed in a spot picture.

4. Press the button 1 while holding the SHIFT button. The selected camera image will change into the still picture.

5. To cancel the still picture, press the button 1 while holding down the SHIFT button again.
   **Notes:**
   - Still picture is not available while zooming is activated.
   - Even when still picture is displayed, the playback of the recorder/time-lapse VCR continues.

## ● Electronic Zooming (EL-ZOOM)

The playback spot picture can be electrically zoomed.

**Note:** To use this function, you need to connect a WJ-HD100 Series recorder or time-lapse VCR to the unit.

1. Enter the recorder mode. (Refer to p. 120 Multiscreen Segment Switching.)

2. Press the PLAY button. (Refer to p. 131 Normal Playback.) The system will enter the playback mode.

3. Select a camera channel by pressing a numeric button and then pressing the CAM (SET) button. The selected camera image will be displayed in a playback spot picture.

4. Press the button 4 while holding down the SHIFT button.
   "+" sings will appear on the image.

5. To move the "+" signs within the picture, move the joystick.

6. Press the button 4 while holding down the SHIFT button. The area surrounded by the "+" signs will be zoomed up.

7. To move the zoom area, move the joystick.

8. To cancel the zooming, press the button 4 while holding down the SHIFT button again.
   **Note:** Still picture is not available while zooming is activated.

**Note:** When a WJ-HD100 Series recorder or a Panasonic time-lapse VCR is connected to the unit, recording status will appear on the monitor in the recorder mode. When the normal recording is activated, "REC" will appear on the monitor. When the alarm recording is activated, "REC ALM" will appear.

**REC**

**REC ALM**

# OPERATING PROCEDURES (PS·DATA)

# WHEN USING A PS·DATA SYSTEM CONTROLLER

This manual describes the operating procedures which are specifically related to WJ-SX150A.
For the basic operating procedures such as log-in/log-out, camera selection, and camera control, etc., refer to the system controller's operating instructions.
The following are different from the terminal mode when you use the system controller via the PS·Data protocol.

- Camera selection, camera control, camera site accessories control are in accordance with the PS·Data System operating procedures. Refer to the system controller's operating instructions.
- You cannot reset an alarm one by one per monitor. However, you can reset all the alarms at a time (ALL RESET).
- You cannot acknowledge an alarm.
- You cannot use the auto log-in function of the unit. To use this function, use a terminal-mode system controller.
- You cannot use the auto log-out function of the unit.
- You cannot move the clock, camera title, event, and/or monitor status display with a PS·Data controller. Use a terminal-mode system controller.
- Operators using the PS·Data system controller have the highest priority to all those using the terminal-mode system controllers.
- PS·Data doesn't support user-management, and you cannot configure the PS·Data operator registration neither through SETUP MENU nor WJ-SX150A Administrator Console.

**Notes:**

- When you select a monitor with a PS·Data system controller, you might enter its number as you do in the terminal mode. However, the matrix switcher regards a monitor as a unit, you need to select it by the unit number. (Refer to p. 125.)
- This unit is counted as 4 PS·Data units. Confirm the total number of the PS·Data units in your system. (Up to 16 PS·Data units are available.)
- If you carry out an operation not designated, the PROHIBITED indicator on the system controller will light up and your operation is prohibited. To cancel the prohibition, press the MON(ESC) button.
- If you activate/cancel alarm suspension with a terminal-mode system controller, the system will return to the state controlled by PS·Data system controllers after given time.

# MONITOR CONTROL

Refer to the system controller's operating instructions before you login the system. After the log-in procedure, the following operations are available to control the system.
The operation begins with selecting a monitor, then the selected camera appears the active monitor.

## ■ Monitor Selection

Unit addresses are given to each monitor.

| Mon 1 | Mon 2 | Mon 3 | Mon 4 |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

The following is how to select a monitor.

1. Press the numeric button(s) to select the desired monitor's unit address.

2. Press the UNIT button.
   The selected monitor will be activated.

## ■ Priority Lock

You can apply or release priority lock by entering the function code. Monitor display is the same as those of terminal mode. (Refer to p. 106 for the illustrations.)

1. Select the desired monitor. (Refer to Monitor Selection.)

2. Press the SHIFT button, and enter 101 by pressing the numeric buttons.

3. Press the FUNCTION button. The function will be executed.
   If the priority lock mode is selected, the monitor number will inversely appear on the active monitor.

4. To release the priority lock, do Step 2 and 3 again.

**Note:** This function will prevent operators in the terminal mode from gaining control of a monitor. However, operators via the PS·Data protocol can still gain control.

# RUNNING SEQUENCE

## ■ Tour Sequence

The following functions are available if a tour sequence has been previously configured through SETUP MENU or WJ-SX150A Administrator Console. Any tour sequence can be assigned to any monitors.

1. Select the desired monitor. (Refer to p. 125 Monitor Selection.)

2. To select the desired tour sequence number, press the numeric buttons.

3. Press the SEQ button to run the tour sequence in the forward direction on the active monitor.

4. Press the SEQ PAUSE button to pause a tour sequence on the active monitor.
   A series of camera picture appear in pause on the monitor screen.

5. Press the SEQ PAUSE button again to restart a tour sequence forward from the next step that was previously paused by pressing the SEQ PAUSE button.

6. Press the SHIFT button, and then press the + button to move the sequence one frame to the next step from the step that was previously paused by pressing the SEQ PAUSE button.
   Press the SHIFT button, and then press the - button to move the sequence one frame to the previous step from the step that was previously paused by pressing the SEQ PAUSE button.

7. Select a camera (refer to the system controller's operating instructions) to stop the sequence. The monitor will return to the spot mode.

## ■ Group Sequence

The following function is available only if a group sequence has been previously established in WJ-SX150A Administrator Console. The group sequence has ID numbers. Group 1 is 91, Group 2 is 92, Group 3 is 93, and Group 4 is 94.
As described earlier, a group sequence determines the assignment of monitors and cameras. Therefore, monitor selection is not required.

1. Press the numeric buttons to select a desired group sequence ID number.

2. Press the SEQ button to run a group sequence forward on the assigned monitors.

3. Press the SEQ PAUSE button to pause a tour sequence on the active monitor.
   A series of camera picture appear in pause on the monitor screen.

4. Press the SEQ PAUSE button again to restart a group sequence forward from the next step that was previously paused by pressing the SEQ PAUSE button.

5. Press the SHIFT button, and then press the + button to move the sequence one frame to the next step from the step that was previously paused by pressing the SEQ PAUSE button.
   Press the SHIFT button, and then press the – button to move the sequence one frame to the previous step from the step that was previously paused by pressing the SEQ PAUSE button.

6. Select a camera (refer to the system controller's operating instructions) to stop the sequence. The assigned monitors will return to the spot mode.

**Note:** If an alarm is activated during a sequence pause, the sequence runs again after the unit recovers from the alarm mode.

# MONITOR DISPLAY CONTROL

The procedure described below lets you determine on-screen display (OSD) items, such as camera title, clock and status, on and off on the active monitor screen.
Before controlling each item, monitor selection is necessary. (Refer to p. 125 Monitor Selection.)

1. Press the SHIFT button, and then press the numeric buttons corresponding to the function code. (Refer to the table.)
2. Press the FUNCTION button. The function will be executed.

| Function | Code | Controller Status | Note |
|---|---|---|---|
| Displaying the clock | 104 | | Pressing again will hide the display. |
| Displaying the camera title | 105 | | Pressing again will hide the display. |
| Displaying the event | 106 | | Pressing again will hide the display. |
| Displaying the monitor status | 107 | | Pressing again will hide the display. |
| Displaying all the items | 19 | | Pressing again will hide the display. |
| Displaying System Status | 102 | | Pressing again will return to the normal display. |
| Displaying Video Loss History | 103 | | Pressing again will return to the normal display. |
| Displaying the next page of Video Loss History | 108 | | |
| Displaying the previous page of Video Loss History | 109 | | |

**Notes:**

- Alarm History Table doesn't have a function code. When displaying the table, press the ALM RECALL button instead of Step 1 and 2 above. The ALARM HISTORY table will appear on the active monitor.
- You cannot control OSD display position.

# ALARM CONTROL

## ■ Alarm Mode

When alarm (sensor) is accepted, the matrix switcher's operation mode changes into the alarm mode. Then, the system operates as follows:

- The camera image (alarm image) appears on the monitor.
  In the factory default setting, the alarm inputs 1 to 16 are associated with the same-numbered camera input connectors. All the video output signals are sent to Monitor 1. For example, when the alarm (sensor) connected to the alarm input 1 becomes active, the camera input connector 1's image appears on Monitor 1.
- "ALARMnn" appears on the monitor.
  (nn is the alarm number).
- Alarm output signals are supplied from Alarm Output 1 to 4 (#10, 11, 23 and 24) of the ALARM port (25-pin D-sub connector) at the rear panel. Alarm Output 1 to 4 is associated with MONITOR OUT 1 to 4. For example, when an alarm input signal is activated on MONITOR OUT 1, the unit supplies an alarm output signal from Alarm Output 1.
- The monitor and alarm number will appear on the LED display of system controllers. At the same time, the alarm indicator will blink, the monitor indicator will light up, and the camera indicator will go out.

**Notes:**

- The association of the alarm inputs with cameras and monitors are changeable in SETUP MENU or WJ-SX150A Administrator Console. (Refer to pp. 67 and 68/ p. 89.)
- Alarm input will be automatically reset in 30 seconds. The auto-recovery time is configurable through SETUP MENU or WJ-SX150A Administrator Console.

## ■ Operation during an Alarm Mode

While an alarm mode is active, you can do the following:

- Resetting all the alarm inputs (ALM RESET)
- Suspending all the alarm inputs (ALM SUSPENDED)

## ■ Resetting All the Alarm Inputs

You can reset all the alarm input signals at a time.

1. Select a monitor which displays "ALARM".
   (Refer to the figure on p. 118.)

2. Press the ALM RESET button.
   All the alarms will be reset.
   Then, the LED display and indicators will return to the state before the alarm input.

**Note:** You cannot reset the alarm input signals one by one.

## ■ Suspending All the Alarm Inputs

Use this function when you do not want to be disturbed by an alarm input, for example, during the setup procedures.

1. To suspend all the alarm input signals, press the ALM SUSPEND button.
   The indicator beside the button will light up and "ALM SUSPENDED" will appear on the monitor.
   (Refer to the figure on p. 119.)

2. To cancel alarm suspension, do Step 1 again.

   **Notes:**

   - The alarm suspension is applied to all system units, not to a selected one.
   - An alarm which was input before the suspension will continue to operate.

# EXPANDED FUNCTION

# WJ-HD500 SERIES CONTROL (TERMINAL MODE)

Matrix switcher can control Digital Disk Recorder WJ-HD500 Series. The following is the procedure of WJ-HD500 Series SETUP MENU.

**Notes:**

- The following operating procedures are for the terminal mode. If you are using a PS·Data system controller, refer to p. 141.
- When a Multiplexer board is installed in the unit, you can neither connect nor control a WJ-HD500 Series recorder. You need to remove the board from the unit.

## ■ Displaying WJ-HD500 Series SETUP MENU

To display WJ-HD500 Series SETUP MENU, follow the procedure below.

1. Confirm that WJ-HD500 Series is correctly and securely connected.

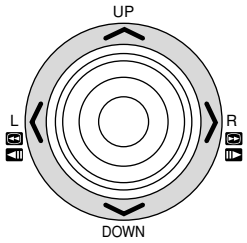
2. Select the desired monitor. (Refer to p. 106 Monitor Selection.)

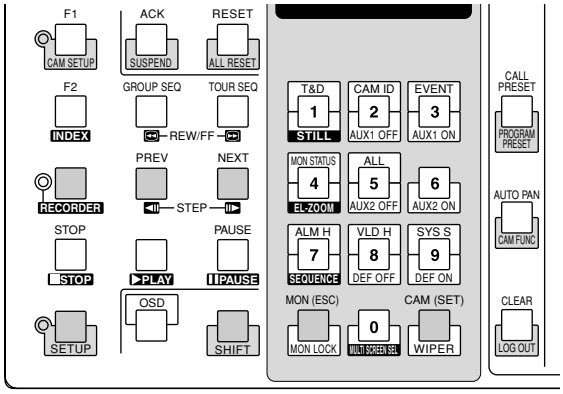
3. Enter the recorder mode. (Refer to p. 131 Recorder Mode.) Then, the selected monitor number and "–H00" will appear on the LED display.




4. Press the SETUP button while holding down the SHIFT button on the system controller.
   WJ-HD500 Series SETUP MENU will appear on the active monitor and the system controller's SETUP indicator will light up.

   The following functions and buttons are valid in SETUP MENU.
   **Joystick to UP (▲):** Moves the cursor up.
   **Joystick to DOWN (▼):** Moves the cursor down.
   **Joystick to L (◀):** Moves the cursor to the left.
   **Joystick to R (▶):** Moves the cursor to the right.
   **CAM (SET) button:** Executes the selections and displays a submenu.
   **NEXT button:** Increments a parameter.
   **PREV button:** Decrements a parameter.
   **MON (ESC) button:** Returns to SETUP MENU or the previous menu.




5. To end the setting and return to the normal view, press the SETUP button while holding down the SHIFT button when SETUP MENU is displayed. The system controller's SETUP indicator will go out.

# ■ Controlling Digital Disk Recorder WJ-HD500 Series

The following are the operating procedures of WJ-HD500 Series via system controller.

**Note:** Refer to the operating instructions of Digital Disk Recorder WJ-HD500 Series for details.

## ● Recorder Mode

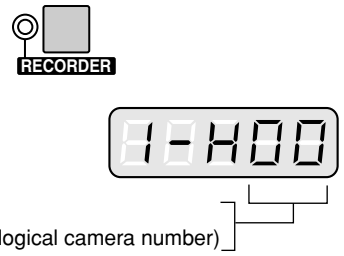
Before operating the recorder, it is necessary to enter the recorder mode.

1. Select the desired monitor. (Refer to p. 106 Monitor Selection.)

2. To select a recorder, press the corresponding numeric button.

| Recorder | Numeric button |
|---|---|
| Master recorder | 0 (You can skip pressing this button.) |
| Slave 1 recorder | 1 |
| Slave 2 recorder | 2 |
| Slave 3 recorder | 3 |
| Slave 4 recorder | 4 |

3. Press the RECORDER button. The system will enter the recorder mode.
   - The indicator beside the RECORDER button will light up, and the images from the recorder are displayed on the active monitor in multiscreen segments.
   - The CAMERA indicator will go out and the monitor number with "-H00" will appear on the LED display.




4. To exit from the recorder mode, select the camera. (Refer to p. 107 Camera Selection.) The indicator beside the button will go out. The monitor number and camera number will appear on the LED display again.

   You can also exit from the recorder mode by pressing the RECORDER button during the recorder mode.

**Note:** Only one operator can enter the recorder mode.

## ● Multiscreen Segment Switching

Multiscreen segment patterns are configurable through WJ-HD500 SETUP.
(Refer to the recorder's operating instructions.)

1. Enter the recorder mode. (Refer to Recorder Mode.)

2. Press the button 0 while holding down the SHIFT button. Every time you press the button, the multiscreen segment patterns are switched. (The following is the factory default setting.)
   4A (Page 1 of the quad → Camera 1, 2, 3, and 4) → 4B (Page 2 - Camera 5, 6, 7 and 8) → 4C (Page 3 - Camera 9, 10, 11 and 12) → 4D (Page 4 – Camera 13, 14, 15 and 16) → 7 (segments) → 9 →10 → 13 → 16 → 4A

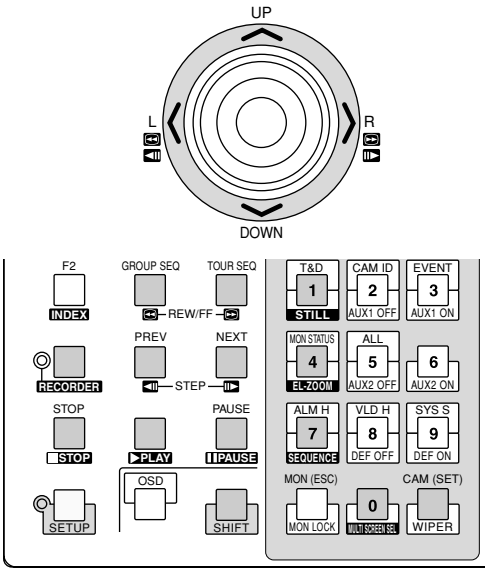
3. To return to the spot display, exit from the recorder mode.

**Note:** Multiscreen segment patterns are not configurable through WJ-SX150A Administrator Console.

## ● Normal Playback

1. Enter the recorder mode (Refer to Recorder Mode.)

2. To start the playback, press the PLAY button. The system will enter the playback mode. Then, the most recent recorded image will be played back.
   - To pause the playback, press the PAUSE button.
   - To stop the playback, press the STOP button.




   - To resume the playback, press the PLAY button.
   - To move forward/backward search during the playback, move the joystick rightward/leftward, or press REW/FF button.
     **Joystick to R (►)/FF (⏩):** Search forward
     **Joystick to L (◄)/REW (⏪):** Search backward

- To move forward/backward field advance during the pause, move the joystick rightward/leftward, or press REW/FF button.
  **Joystick to R (►)/STEP (▮►):** Forward field advance
  **Joystick to L (◄)/STEP (◄▮):** Backward field advance
- To skip to the previous/next record during the playback, move the joystick upward/downward. (Refer to the recorder's operating instructions for the description of record.)
  **Joystick to UP (▲):** Skips to the previous record.
  **Joystick to DOWN (▼):** Skips to the next record.
- To display the spot picture, press the numeric button corresponding to the desired camera number, then press the CAM (SET) button. Then, the active monitor number with "-H** (** is the logical camera number)" will appear on the LED display.




- To resume the multiscreen display, press the button 0 while holding down the SHIFT button.
- To change the number of multiscreen segments, press the button 0 while holding down the SHIFT button again during the multiscreen display.

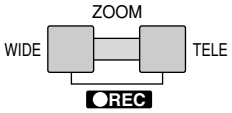
3. To stop the playback, press the STOP button. The monitor display will return to the multiscreen display.

## ● Manual Recording

1. Enter the recorder mode (Refer to p. 131 Recorder Mode.)

2. To start recording, press the WIDE and TELE buttons simultaneously.
   The digital disk recorder will start recording.

3. To stop the recording, press the STOP button while holding down the SHIFT button.




**Note:** Refer to WJ-HD500 Series Operating Instructions for details and other recording modes.

## ● Stopping REC ONLY Alarm Recording

You can stop alarm recording activated by "REC ONLY" setting of 430 CAMERA/440 ALARM PORT/450 SERIAL PORT/460 MUX MOTION DET in SETUP MENU (refer to pp. 68 and 69) or the Alarm Mode window in WJ-SX150A Administrator Console (refer to p. 88).

To stop the alarm recording, press the ALL RESET button while holding down the SHIFT button.

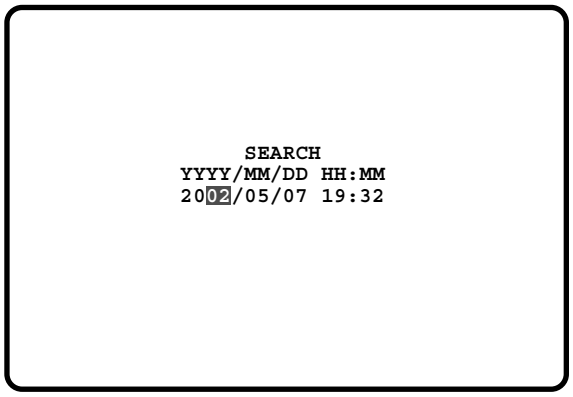
## ● Search Playback

You can search playback images using the Record List or Thumbnail Display. Every time you press the INDEX button, the display will change as follows.
Live image → Date-and-time entry form → Record List → Thumbnail Display → Live image

**• Date-and-time Search Playback**
The recorded images can be searched for through the date and time.

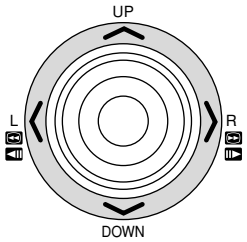
1. Enter the recorder mode. (Refer to p. 131 Recorder Mode.)
2. Press the INDEX button. The date-and-time entry form will appear on the center of the monitor.




**Note:** The factory default setting is the current date and time.

3. Press the numeric buttons or NEXT/PREV button to enter the desired date and time. The cursor can be adjusted by moving the joystick rightward or leftward.



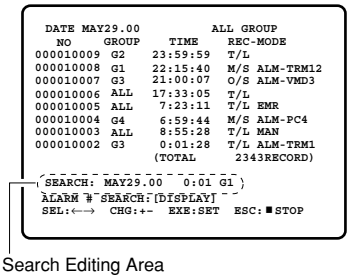

4. Press the PLAY button. Record List will be displayed and the cursor will move to the closest date and time.

**Note:** To cancel the entry form, press the CLEAR button.

### • Record List/Thumbnail Display

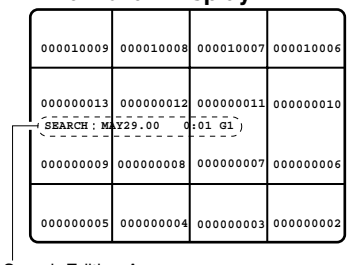
You can operate the Record List or Thumbnail Display by referring to the recorder's operating instructions. In addition, the following operations from the system controllers are also available.

**• Record List**




Search Editing Area

**• Thumbnail Display**




Search Editing Area

**Joystick to UP (▲):** Moves the cursor up.
**Joystick to DOWN (▼):** Moves the cursor down.
**Joystick to L (◄):** Moves the cursor to the left.
**Joystick to R (►)**: Moves the cursor to the right.
**CAM(SET) button:** Displays the search editing area./Starts the search after you enter the search condition.
**MON(ESC)button:** Cancels the search editing area and returns to the Record List or Thumbnail Display.
**NEXT button:** Increments a parameter.
**PREV button:** Decrements a parameter.
**PLAY button:** Starts the playback of a record pointed by the cursor.

**Note:** The PLAY button is deactivated in the search editing area.

## ● Electronic Zooming (EL-ZOOM)

Playback images can be electrically zoomed besides a camera's optical zooming.

1. Enter the recorder mode (Refer to p. 131 Recorder Mode.)

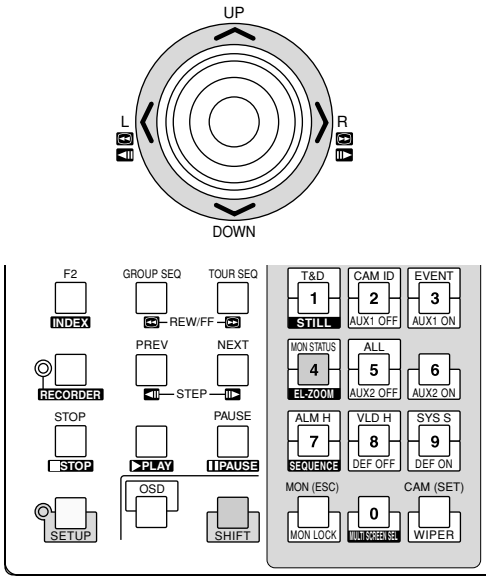
2. Press the PLAY button.

3. Press the numeric button corresponding on the desired camera number to display the spot picture.

4. Press the CAM (SET) button.
   The selected camera's picture is displayed in the spot mode.




5. Each time the button 4 and the SHIFT button are pressed, the zooming range are changeable as follows:
   2x → 4x → 8x → 1x → 2x




6. To return the zooming range to x 1, press the button 4 while holding down the SHIFT button again.

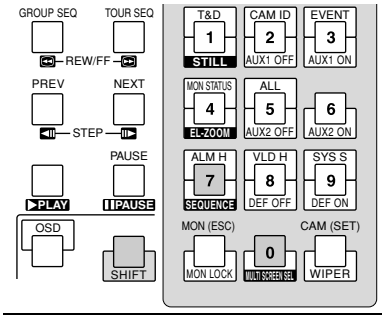
7. To return to the multiscreen display, press the button 0 while holding down the SHIFT button.
   **Note:** You can move the zoomed area on the monitor with the joystick after Step 5.

## ● Multiscreen Sequence

Digital disk recorder starts a sequence according to the setting of WJ-HD500 Series.

1. Enter the recorder mode (Refer to p. 131 Recorder Mode.)

2. Press the button 7 while holding down the SHIFT button.




3. To cancel the sequence, press the button 0 while holding down the SHIFT button.
   The display will change into the multiscreen display.

## ● Other Operations

**SHIFT + ZOOM TELE buttons:** Selects a group to be played back.

**SHIFT + ZOOM WIDE buttons:** Changes the display mode of the Record List between the alarm search ON and OFF.

- **ON:** Displays only the Alarm and Emergency Record List of the selected group.
- **OFF:** Displays all the record lists for the selected group.

# WJ-HD200 SERIES CONTROL (TERMINAL MODE)

Matrix switcher can control Digital Disk Recorder WJ-HD200 Series. The following is the procedure of WJ-HD200 Series SETUP MENU.

**Notes:**
- The following operating procedures are for the terminal mode. If you are using a PS·Data system controller, refer to p. 143.
- When a Multiplexer board is installed in the unit, you can neither connect nor control a WJ-HD200 Series recorder. You need to remove the board from the unit.

## ■ Displaying WJ-HD200 Series SETUP MENU

The operations are the same as WJ-HD500 Series. (Refer to p. 130.)

## ■ Controlling Digital Disk Recorder WJ-HD200 Series

The following are the operating procedures of WJ-HD200 Series via system controller.

**Note:** Refer to the operating instructions of Digital Disk Recorder WJ-HD200 Series for details.

### ● Recorder Mode

The operations are the same as WJ-HD500 Series. (Refer to p. 131.)

### ● Multiscreen Segment Switching

The operations are the same as WJ-HD500 Series. (Refer to p. 131.)

**Note:** 4C-, 4D-, 7-, 10-, 13- and 16-segment multiscreen display are unavailable.

### ● Normal Playback

The operations are the same as WJ-HD500 Series. (Refer to p. 131.)

**Note:** You cannot skip to the previous/next record.

### ● Manual Recording

The operations are the same as WJ-HD500 Series. (Refer to p. 132.)

**Note:** Refer to WJ-HD200 Series Operating Instructions for details and other recording modes.

### ● Stopping REC ONLY Alarm Recording

The operations are the same as WJ-HD500 Series. (Refer to p. 132.)

### ● Search Playback

You can search playback images using the ALARM RECALL table or the SEARCH table.

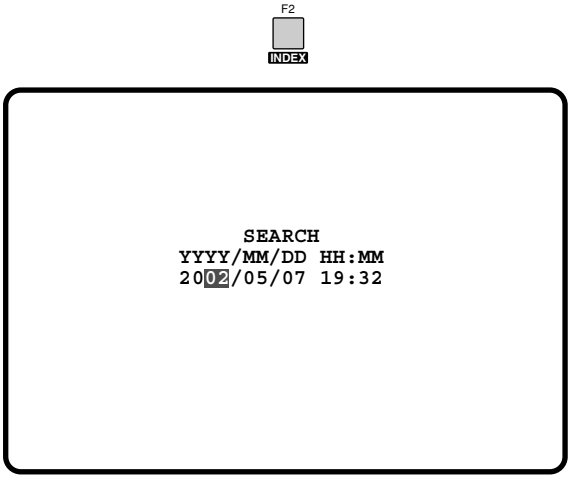
Every time you press the INDEX button, the display will change as follows.
Live image → Date-and-time entry form → ALARM RECALL table → Live image

#### • Date-and-time Search Playback

The recorded images can be searched for through the date and time.

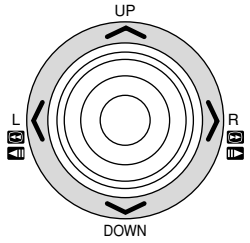
1. Enter the recorder mode. (Refer to p. 131 Recorder Mode.)

2. Press the INDEX button. The date-and-time entry form will appear on the center of the monitor.




**Note:** The factory default setting is the current date and time.

3. Press the numeric buttons or NEXT/PREV button to enter the desired date and time.
   The cursor can be adjusted by moving the joystick rightward or leftward.




4. Press the PLAY button. After the search through the date and time, the recorded image will be played.

5. To return to the multiscreen display, press the STOP button.

**Note:** To cancel the entry form, press the CLEAR button.

### • ALARM RECALL table

The recorder's alarm history will be displayed on the ALARM RECALL table.
Move the cursor with the joystick to the desired alarm number, and then press the PLAY button. The associated image will be played back.

```
     ALARM RECALL  YEAR03
 NO.  DATE  TIME      ALM
 2000 06-14 20:30:00  T1
 1999 06-14 15:30:12  T3
 1998 06-14 12:15:04  T4
 1997 06-14 12:15:02  V8
 1996 06-14 10:07:05  V2
 1995 06-14 10:07:04  T2
 1994 06-14 10:06:55  T6
 1993 06-14 09:58:32  V5
(TOTAL  2000EVENTS)
 TO SEARCH PUSH T&D KEY
```

## ● Electronic Zooming (EL-ZOOM)

The operations are the same as WJ-HD500 Series. (Refer to p. 133.)

**Note:** 2 x and 4 x are available zooming range. 8 x is unavailable.

## ● Multiscreen Sequence

The operations are the same as WJ-HD500 Series. (Refer to p. 134.)

# WJ-HD100 SERIES CONTROL MUX (TERMINAL MODE)

Digital Disk Recorder WJ-HD100 Series are operable with the system controller, when the Multiplexer board is installed in the unit.

**Note:** Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the digital disk recorder, and configure the system through WJ-SX150A Administrator Console, OSD SETUP MENU, and WJ-HD100 Series SETUP MENU. [Refer to p. 32 Installing the Multiplexer Board, p. 45 Connection with Digital Disk Recorder WJ-HD100 Series, p. 63 WJ-SX150A SETUP MENU (OSD), p. 79 WJ-SX150A ADMINISTRATOR CONSOLE, and Displaying WJ-HD100 Series SETUP MENU in this page.]

## ■ Displaying WJ-HD100 Series SETUP MENU

The operations are the same as WJ-HD500 Series.
Refer to p. 130 Displaying WJ-HD500 Series SETUP MENU.
The following functions and buttons are valid in SETUP MENU.

**Joystick to R (►):** Decrements a parameter
**Joystick to L (◄):** Increments a parameter

## ■ Controlling Digital Disk Recorder WJ-HD100 Series

The following are the operating procedures of WJ-HD100 Series via the system controller.

### ● Multiscreen Segment Switching

The operating procedure is the same as WJ-HD500 Series. (Refer to p. 131.)

**Note:** 7-, 10-, or 13-segment multiscreen display is unavailable.

### ● Normal Playback

The operations are the same as WJ-HD500 Series. (Refer to p. 131.)

**Notes:**

- You cannot skip to the previous/next record.
- Refer to WJ-HD100 Series Operating Instructions for details and other playback modes.

### ● Manual Recording

The operations are the same as WJ-HD500 Series.
Refer to p. 132.

### ● Stopping REC ONLY Alarm Recording

The operations are the same as WJ-HD500 Series. Refer to p. 132.

### ● Search Playback

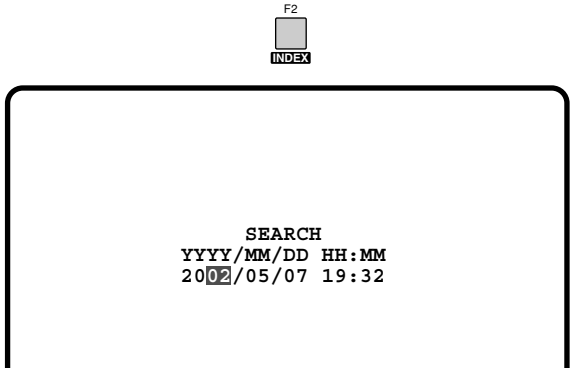
You can search playback images using the ALARM RECALL table or the SEARCH table.

Every time you press the INDEX button, the display will change as follows.
Live image → Date-and-time entry form → ALARM RECALL table → Live image

#### • Date-and-time Search Playback

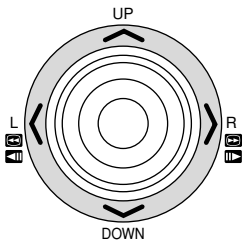
The recorded images can be searched for through the date and time.

1. Enter the recorder mode. (Refer to p. 131 Recorder Mode.)
2. Press the INDEX button. The date-and-time entry form will appear on the center of the monitor.




**Note:** The factory default setting is the current date and time.

3. Press the numeric buttons or NEXT/PREV button to enter the desired date and time. The cursor can be adjusted by moving the joystick rightward or leftward.



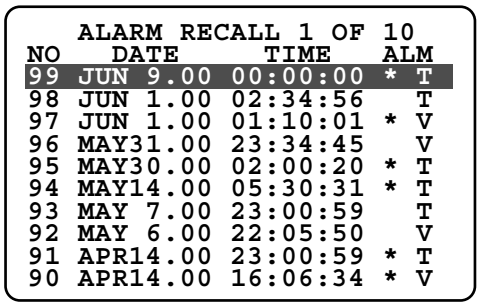

4. Press the PLAY button. After the search through the date and time, the recorded image will be played.

5. To return to the multiscreen display, press the STOP button.

**Note:** To cancel the entry form, press the CLEAR button.

## • ALARM RECALL table

The recorder's alarm history will be displayed on the ALARM RECALL table.
Move the cursor with the joystick to the desired alarm number, and then press the PLAY button. The associated image will be played back.



# TIME-LAPSE VCR CONTROL MUX [PANASONIC MODELS] (TERMINAL MODE)

A time-lapse VCR (Panasonic Models) is operable with the system controller, while connecting to the matrix switcher.

**Note:** Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the time-lapse VCR, and configure the system through WJ-SX150A Administrator Console, OSD SETUP MENU, and time-lapse VCR's SETUP MENU. [Refer to p. 32 Installing the Multiplexer Board, p. 46 Connection with the Time-lapse VCR (Panasonic Models), p. 63 WJ-SX150A SETUP MENU (OSD), and p. 79 WJ-SX150A ADMINISTRATOR CONSOLE.]

The following is the procedure of a Panasonic model time-lapse VCR.

## ■ Controlling the Time-lapse VCR

The following are the operating procedures of the time-lapse VCR via system controllers.

### ● Multiscreen Segment Switching

The operations are the same as WJ-HD500 Series.
Refer to p. 131 Multiscreen Display.

**Note:** 7-, 10-, and 13- segment multiscreen display are unavailable.

### ● Normal Playback

The operations are the same as WJ-HD500 Series.
Refer to p. 131 Normal Playback.

**Note:** You cannot skip to the previous/next record.

### ● Fast-forward

1. Press the FF button to fast-forward the tape during the stop.
2. To stop fast-forwarding, press the STOP button.
   **Note:** Pressing the FF button during fast-forward will start playback.

### ● Rewind

1. During the stop, press the REW button to rewind the tape.
2. Press the STOP button to stop rewinding.
   **Note:** Pressing the PLAY button during rewind will start playback.

### ● Manual Recording

The operations are the same as WJ-HD500 Series.
Refer to p. 132 Manual Recording.

### ● Stopping REC ONLY Alarm Recording

The operations are the same as WJ-HD500 Series. Refer to p. 132.

# TIME-LAPSE VCR CONTROL MUX [NON-PANASONIC MODELS] (TERMINAL MODE)

A time-lapse VCR is operable with the system controller, while connecting to the matrix switcher.

**Notes:**

- Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the digital disk recorder, and configure the system through WJ-SX150A Administrator Console, OSD SETUP MENU, and time-lapse VCR's SETUP MENU. [Refer to p. 32 Installing the Multiplexer Board, p. 47 Connection with the Time-lapse VCR (Non-Panasonic Models), p. 63 WJ-SX150A SETUP MENU (OSD), and p. 79 WJ-SX150A ADMINISTRATOR CONSOLE.]
- You cannot control non-Panasonic time-lapse VCRs from system controllers.

The following is the procedure of a non-Panasonic model time-lapse VCR.

## ■ Controlling the Time-lapse VCR

### ● Multiscreen Segment Switching

The operations are the same as WJ-HD500 Series.
Refer to p. 131 Multiscreen Segment Switching.

**Note:** 7-, 10-, and 13- segment multiscreen display are unavailable.

### ● Normal Playback

1. Enter the recorder mode. (Refer to p. 131 Recorder Mode.)
2. Do the playback procedure using the buttons on the front panel. (Refer to the time-lapse VCR's operating instructions for how to operate.)
3. Press the PLAY button. The playback image will appear on the monitor.
4. To display the spot picture, press the numeric buttons corresponding to the desired camera number, then press the CAM [SET] button. Then, the active monitor number with "-H**" (** is the logical camera number)" will appear on the LED display. (Refer to p. 132 Normal Playback for the illustration.)

### ● Other Operations

Refer to the time-lapse VCR's operating instructions for how to operate.

# WJ-HD500 SERIES CONTROL (PS·DATA)

This section will describe what you should take notice when using a PS·Data system controller.
The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them.

## ■ Controlling the Recorder with a PS·Data System Controller

### ● Recorder Mode

Before operating the recorder, it is necessary to enter the recorder mode.

1. Select the desired monitor. (Refer to p. 125 Monitor Selection.)
2. In the PS·Data mode, a number is assigned to each recorder. To select a desired recorder, enter the corresponding number by pressing the numeric buttons.

| Recorder | Number |
|---|---|
| Master recorder | 100 |
| Slave 1 recorder | 101 |
| Slave 2 recorder | 102 |
| Slave 3 recorder | 103 |
| Slave 4 recorder | 104 |

3. Press the CAM button.
   The recorder image will be displayed on the selected monitor, and you will enter the recorder mode.

### ● Operations

1. Press the SHIFT button to activate the FUNCTION buttons.
2. Enter the desired function code, and then press the FUNCTION button. (Refer to the diagram.)

| Function | Code | Note |
|---|---|---|
| Forward field advance | 1 | Available only during pause |
| Backward field advance | 2 | Available only during pause |
| Pause | 4 | |
| Playback | 5 | |
| Recording | 6 | Equal to the REC button of the recorder |
| Stop recording and playback | 8 | |
| Stop playback | 9 | Exclusive use to stop playback |
| Stop recording | 10 | Exclusive use to stop recording |
| Search forward | 11 | |
| Search backward | 12 | |
| Displaying a recorder's OSD | 19 | Pressing again will hide the display. |

3. To select a camera channel, press the numeric button(s), then CAM button. The system will exit from the recorder mode, and the selected camera image will be displayed on the monitor.

**Notes:**

- Only one operator can enter the recording mode.
- The images from the recorder, which are displayed on the monitor, is conformed to the recorder setting.
- You cannot skip to the previous/next record by moving the joystick.

## ● Stopping REC ONLY Alarm Recording

You can stop alarm recording activated by “REC ONLY” setting of 430 CAMERA/440 ALARM PORT/450 SERIAL PORT/460 MUX MOTION DET in SETUP MENU (refer to pp. 68 and 69) or the Alarm Mode window in WJ-SX150A Administrator Console (refer to p. 88).

To stop the alarm recording, press the ALM RESET button.

# WJ-HD200 SERIES CONTROL (PS·DATA)

This section will describe what you should take notice when using a PS·Data system controller.
The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them.

## ■ Controlling the Recorder with a PS·Data System Controller

1. Enter the recorder mode. (Refer to p. 141.)
2. Press the SHIFT button to activate the FUNCTION buttons.
3. Enter the desired function code, and then press the FUNCTION button. (Refer to the diagram.)

| Function | Code | Note |
|---|---|---|
| Forward field advance | 1 | |
| Backward field advance | 2 | |
| To the last field | 3 | |
| Pause | 4 | |
| Playback | 5 | |
| Recording | 6 | Equal to the REC button of the recorder |
| To the first field | 7 | |
| Stop recording and playback | 8 | |
| Stop playback | 9 | Exclusive use to stop playback |
| Stop recording | 10 | Exclusive use to stop recording |
| Search forward | 11 | Searching will speed up every time you enter the code. |
| Search backward | 12 | Searching will speed up every time you enter the code. |
| Displaying a recorder's OSD | 19 | Pressing again will hide the display. |

4. To select a camera channel, press the numeric button(s), then CAM button. The system will exit from the recorder mode, and the selected camera image will be displayed on the monitor.

**Notes:**

- Only one operator can enter the recording mode.
- The images from the recorder, which are displayed on the monitor, is conformed to the recorder setting.

## ● Stopping REC ONLY Alarm Recording

The operations are the same as WJ-HD500 Series. Refer to p. 142.

# WJ-HD100 SERIES CONTROL MUX (PS·DATA)

This section will describe what you should take notice when using a PS·Data system controller.
The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them.

**Note:** Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the digital disk recorder, and configure the system through WJ-SX150A Administrator Console, OSD SETUP MENU, and WJ-HD100 Series SETUP MENU. [Refer to p. 32 Installing the Multiplexer Board, p. 45 Connection with Digital Disk Recorder WJ-HD100 Series, p. 63 WJ-SX150A SETUP MENU (OSD), p. 79 WJ-SX150A ADMINISTRATOR CONSOLE, and p. 137 Displaying WJ-HD100 Series SETUP MENU.]

## ■ Controlling the Recorder with a PS·Data System Controller

### ● Recorder Mode

1. Enter the recorder mode. (Refer to p. 141.)
2. Press the SHIFT button to activate the FUNCTION buttons.
3. Enter the desired function code, and then press the FUNCTION button. (Refer to the diagram.)

| Function | Code | Note |
|---|---|---|
| Forward field advance | 1 | |
| Backward field advance | 2 | |
| To the last field | 3 | |
| Pause | 4 | |
| Playback | 5 | |
| Recording | 6 | Equal to the REC button of the recorder |
| To the first field | 7 | |
| Stop recording and playback | 8 | |
| Stop playback | 9 | Exclusive use to stop playback |
| Stop recording | 10 | Exclusive use to stop recording |
| Search forward | 11 | Searching will speed up every time you enter the code. |
| Search backward | 12 | Searching will speed up every time you enter the code. |

4. To select a camera channel, press the numeric button(s), then CAM button. The system will exit from the recorder mode, and the selected camera image will be displayed on the monitor.

**Notes:**
- Only one operator can enter the recorder mode.
- The images from the recorder, which are displayed on the monitor, is conformed to the recorder setting.

### ● Stopping REC ONLY Alarm Recording

The operations are the same as WJ-HD500 Series. Refer to p. 142.

# TIME-LAPSE VCR CONTROL MUX [PANASONIC MODELS] (PS·DATA)

This section will describe what you should take notice when using a PS·Data system controller.
The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them.

**Notes:**

- Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the time-lapse VCR, and configure the system through WJ-SX150A Administrator Console, OSD SETUP MENU, and time-lapse VCR's SETUP MENU. [Refer to p. 32 Installing the Multiplexer Board, p. 46 Connection with the Time-lapse VCR (Panasonic Models), p. 63 WJ-SX150A SETUP MENU (OSD), and p. 79 WJ-SX150A ADMINISTRATOR CONSOLE.]
- The time-lapse VCR's SETUP MENU cannot be displayed from a system controller.

## ■ Controlling the Time-lapse VCR with a PS·Data System Controller

1. Enter the recorder mode. (Refer to p. 141.)
2. Press the SHIFT button to activate the FUNCTION buttons.
3. Enter the desired function code, and then press the FUNCTION button. (Refer to the diagram.)

| Function | Code | Note |
|---|---|---|
| Forward field advance | 1 | Available only during pause |
| Backward field advance | 2 | Available only during pause |
| Pause | 4 | |
| Playback | 5 | |
| Recording | 6 | |
| Stop recording/Playback | 8 | |
| Fast-forward/Search forward | 11 | Fast-forward during stop/Search forward during playback |
| Rewind/Search backward | 12 | Rewind during stop/Search backward during playback |

4. To select a camera channel, press the numeric button(s), then CAM button. The system will exit from the recorder mode, and the selected camera image will be displayed on the monitor.

**Notes:**

- Only one operator can enter the recorder mode.
- The images from the recorder, which are displayed on the monitor, is conformed to the recorder setting.

### ● Stopping REC ONLY Alarm Recording

The operations are the same as WJ-HD500 Series. Refer to p. 142.

# TIME-LAPSE VCR CONTROL MUX [NON-PANASONIC MODELS] (PS·DATA)

A time-lapse VCR is operable with the system controller, while connecting to the matrix switcher.

**Notes:**

- The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them.
- Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the digital disk recorder, and configure the system through WJ-SX150A Administrator Console, OSD SETUP MENU, and time-lapse VCR's SETUP MENU. [Refer to p. 32 Installing the Multiplexer Board, p. 47 Connection with the Time-lapse VCR (Non-Panasonic Models), p. 63 WJ-SX150A SETUP MENU (OSD), and p. 79 WJ-SX150A ADMINISTRATOR CONSOLE.]
- You cannot control non-Panasonic time-lapse VCRs from PS·Data system controllers.

The following is the procedure of a non-Panasonic model time-lapse VCR.

## ■ Controlling the Time-lapse VCR with a PS·Data System Controller

### ● Manual Recording

Refer to the time-lapse VCR's operating instructions for how to operate.

### ● Normal Playback

1. Enter the recorder mode. (Refer to p. 141.)
2. Do the playback procedure using the buttons on the front panel of time-lapse VCR. (Refer to the time-lapse VCR's operating instructions for how to operate.)
3. Press the VCR/CAM button. The playback image will appear on the monitor.
4. To display the spot picture, press the numeric buttons corresponding to the desired camera number, then press the CAM [SET] button. Then, the active monitor number with "-H**" (** is logical the camera number)" will appear on the LED display. (Refer to p. 132 Normal Playback for the illustration.)

### ● Other Operations

Refer to the time-lapse VCR's operating instructions for how to operate.

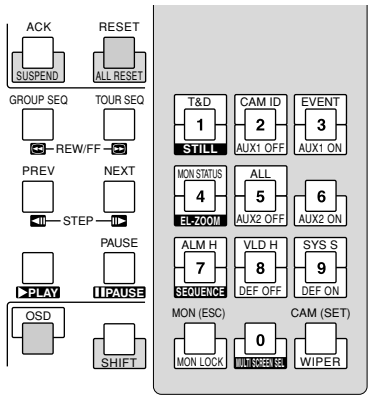
# MONITOR DISPLAY WHEN A VIDEO LOSS OCCURS

## ■ Video Loss Display

- When video loss of CAMERA IN nn (nn is a number) is detected, " LOSS CH nn" will blink on the monitor.
- When more than one LOSS CH have occurred, "LOSS CH nn*" will appear on the monitor.

```
LOSS CH01
LOSS CH01*
```

- When the input loss is recovered, "LOSS CH nn" will disappear from the monitor.
- When you press the RESET button while pressing the "OSD"button, "LOSS CH nn" will disappear from the monitor.




## ■ Camera Switching Pulse Loss Display MUX

- When loss of the camera switching pulse is detected, “CAMSW LOSS R1” will blink on the monitor.

```
CAMSW LOSS R1
```

**Note:** “R1” is an example of a recorder number.

- When the camera switching pulse is recovered, “CAM SW LOSS R1” will disappear from the monitor.

# TROUBLESHOOTING

Check to see the following before request for repair.
If a trouble cannot be removed even after checking and trying remedy, contact your dealer.

| Problem | Check item | Remedy |
|---|---|---|
| Matrix switcher does not power up. | The power cord may be disconnected either from the unit's power socket or the AC outlet. | Connect the power cord between the unit's power socket and the AC outlet. |
| System controller(s) do (does) not log in. | The unit's power cord may be disconnected from the AC outlet. | Connect the power cord to the AC outlet. |
| | The cable connection(s) may be wrong between the unit and the system controller(s). | Confirm the cable connections. (Refer to p. 39.) |
| | The mode selection switch setting of the system controller may be wrong. | Confirm the mode selection switch setting. (Refer to p. 24.) |
| | Data port setting may be wrong. | Open the Data Port window of WJ-SX150 Administrator Console (refer to p. 96.) to select Terminal_K1 to K4 for the data port. If Camera is selected for the port, the log-in will be invalid. |
| | Your ID, user number or password may be wrong. | Refer to your Operator Registration worksheet. Or open the Operator Registration window (refer to p. 90) and reconfigure your ID, user number and password. |
| Monitor is not selectable. | The monitor selection setting may be wrong. | Open the Monitor Selection window (refer to p. 92) and confirm the setting. If NG is assigned to your controller for the monitor, the selection will be invalid. |
| Camera image is not displayed even after selecting the camera. | The camera's power cord connection may be wrong. | Confirm the power cord connection. (Refer to the camera's operating instructions.) |
| | The cable connections may be wrong between the unit and the camera. | Confirm the connections (refer to pp. 36 to 38). If the connections and camera type are not correspondent, the camera image will not appear. |
| | The lens cover may not have been removed from the camera. | Remove the lens cover from the camera. |
| | The monitor's brightness or contrast setting may not be proper. | Adjust the setting. (Refer to the monitor's operating instructions.) |
| | The lens iris of a camera may be closed. | Press the IRIS OPEN button. |

| Problem | Check item | Remedy |
|---|---|---|
| The camera image is dim. | Dust may be sticking on the camera lens. | Remove the dust from the camera lens. |
| | The camera's lens focus may not be proper. | Press the FOCUS NEAR/ FAR buttons to adjust the lens focus. If the camera supports auto focus, press these buttons simultaneously. The lens focus can be adjusted automatically. |
| | The camera's cable compensation setting may not be proper. | Open 730 COMPENSATION/VD2/DATA (refer to p. 74) or the Cable Compensation/VD2 window (refer to p. 94) to confirm the setting. |
| The camera is not operable. | The camera may not have been selected. | Select the camera again. (Refer to p. 107.) |
| | The camera may not support the function you try to execute. | Confirm whether the camera supports the function. (Refer to the camera's operating instructions.) |
| | The camera's cable setting may wrong. | Open 730 COMPENSATION/VD2/DATA (refer to p. 74) or the Cable Compensation/VD2/DATA (refer to p. 94) window to confirm the setting. If the camera's DATA is set to OFF, the cameras will not be operable. |
| | The data port setting may wrong. | Open the Data Port window (refer to p. 96) and confirm the setting. |
| | When the BUSY indicator is lighting on the system controller, a higher-priority operator has selected the camera. | • Select another camera.<br>• Wait until a higher-priority operator finishes controlling the camera. |
| | While the PROHIBITED indicator is lighting on the system controller, you are prohibited to control the camera. | Open the Operator Registration window (refer to p. 90) and reconfigure the setting. |
| OSD items (Clock, Camera title, Monitor status, Event) overlap one another. | | • Turn off an overlapping item. (Refer to p. 115.)<br>• Move OSD items. (Refer to p. 115.)<br>• Change the area title display position through the camera's setup menu. (Refer to the camera's operating instructions.) |
| Tour/group sequence is not activated. | The tour/group sequence setting may be wrong. | Open 300 SEQUENCE (refer to p. 66), the Tour Sequence (refer to p. 84) or Group Sequence (refer to p. 85) window and reconfigure the setting. |
| | The setting has not been put from the PC to the unit. | Put the file to the unit again after the configuration. (Refer to p. 83 Put a file to SX150A.) |
| | When the PROHIBITED indicator is lighting on the system controller, you are prohibited to control the camera. | Open 800 OPERATOR REGISTRATION (refer to p. 76) or the Operator Registration window (refer to p. 90) and reconfigure the setting. |

| Problem | Check item | Remedy |
|---|---|---|
| The alarm mode is not activated. | The alarm mode is set to OFF. | Set the alarm mode to SEQUENCE or HOLD in SETUP MENU or WJ-SX150A Administrator Console.<br>SETUP MENU: Refer to p. 67.<br>Administrator Console: Refer to p. 88. |
| | The port for an alarm input is set to OFF. | Set the alarm port to ON in SETUP MENU or WJ-SX150A Administrator Console.<br>SETUP MENU: Refer to pp. 68 to 69<br>Administrator Console: Refer to p. 88. |
| | When "ALM SUSPENDED" is displayed on the monitor, the alarm is suspended. | Press the ACK/SUSPEND button while holding down the SHIFT button to cancel the alarm suspension. |
| | SETUP MENU may be open. | Press the SETUP button while holding down the SHIFT button to close SETUP MENU. |
| ACK or RESET is not activated. | You may not have selected the alarm-related monitor. | Select the monitor again. (Refer to pp. 106 or 125.) |
| | The system controller is not authorized to select the monitor. | Confirm the Monitor Selection window in WJ-SX150A Administrator Console and reconfigure the setting if necessary. (Refer to p. 92.) |
| | You are not authorized to reset an alarm. | Confirm the Level Table window in WJ-SX150A Administrator Console and reconfigure the setting if necessary. (Refer to p. 91.) |
| | While the PROHIBITED indicator is lighting on the system controller, you are prohibited to control the monitor. | Open the Monitor Selection window (refer to p. 92) and reconfigure the setting if necessary. |
| Timer event is not activated. | A higher-priority operator may have selected the event-related monitor. | Select another monitor. |
| SETUP MENU does not open. | When the PROHIBITED indicator is lighting on the system controller, you are prohibited to open SETUP MENU. | Open the Level Table window (refer to p. 91) and reconfigure the setting. |
| The system does not enter the recorder mode. | The recorder connection may be wrong. | Connect the recommended recorder to the unit. |
| | The connected recorder may not conform to the unit. | Confirm the recorder connection (refer to pp. 40 to 47.) |
| | You are not authorized to operate the recorder. | Open the Level Table window (refer to p. 91) and reconfigure the setting. |
| “NOT ASSIGN” is displayed beside the camera number on the monitor. | When you select the LCN (logical camera number) not assigned in the system, “NOT ASSIGN” will appear. | Select an assigned logical camera number. (Refer to p. 107.) |
| “Initializing…” is displayed on monitors. | If connections or settings are wrong, this message, SLAVE n*, and the firmware version will be displayed after you turn on a Slave recorder.<br>*n is a unit number. | Confirm the connections (refer to pp. 33 to 55) and settings (refer to pp. 57 to 102). |
| (For WJ-HD500 Series recorders) You cannot search for records even when carrying out the Search Playback procedure. | “Error” or “TIME OUT” may be displayed after pressing the PLAY button in the date-and-time entry form. | The date-and-time entry form is unavailable. Use Record List or Thumbnail Display to search for records. |
| Recording or playback with the recorder is not correctly carried out. | Camera number settings are wrong. | Conform the LCN (logical camera number) settings of the unit and camera number settings of the recorder. |

# APPENDIX

# COMMUNICATION PROTOCOL

The following pages detail the elements for communication between the unit and the PC.
When operating the PC, make sure to conform the serial port's communication speed to that of the unit.
The unit's communication speed is configurable by changing COM. SPEED in SETUP MENU. Data, parity and stop bits have been set as follows:

| Item | Parameter |
|---|---|
| Data length | 8bit(fixed) |
| Parity bit | NONE(fixed) |
| Stop bit | 1bit(fixed) |
| Hardware flow control (ER/DR/RS/CS) | Not supported yet |
| Software flow control (Xon/Xoff) | Not supported yet |
| Wait Time | Not supported yet |

## 1. Transmission Command

The PC sends messages to the recorder in the following format. Also refer to the command table.

| Code | [STX] [Transmission Command] : [p1] : [p2] : : [pn] [ETX] |
|---|---|
| ASCII | (02H) ( ) – – – – – – – – – – – – – – – – – – ( ) (03H) |

[p] stands for parameter. Parameters are omitted when the command does not need to specify them.

## 2. Response Command

The unit returns messages to the PC with the following formats.

**(1) Reception Command**

When the reception was completed successfully, the unit sends back the "ACK code 06H" to the PC, and then the response command.

| Code | [STX] [Response Command] : [p1] : [p2] : : [pn] [ETX] |
|---|---|
| ASCII | (02H) ( ) – – – – – – – – – – – – – – – – ( ) (03H) |

Parameters are omitted when the command format includes neither data nor status to send back.

**(2) Reception Error**

The unit sends back "NAK code 15H", followed by the parameters. The unit then resets the reception buffer and enters the waiting mode for the next message. Parameter "e" identifies the error status.

| Code | [NAK] [e] |
|---|---|
| ASCII | (15H) |

1: Parity error (31H)
2: Overflow error (32H)
3: Framing error (33H)
4: Overrun error (34H)
5: Timeout error (35H)

**(3) Parameter Error**

The unit returns "ACK code 06H", if the transmission code was not processed properly, followed by an error code.

| Code | [STX] [Response Command] : [E] [R] [n1] [n2] [n3] [ETX] |
|---|---|
| ASCII | (02H) ( )– – – – – – – – – – – – – – (45H) (52H) 03H |

[n] stands for an error code number. (Refer to p. 161.)

**Note:** The unit returns [ACK] or [NAK] to the PC within 20 ms after the reception of [ETX] in a transmission.

## ■ Command Table

### Basic Operation

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Log-in | CMD:Wnnnnn-ppppp | ANS:WOK (When OK)<br>ANS:WNG (When NG) | nnnnn= Operator number<br>ppppp= Password |
| Log-out | CMD:H00LG | ANS:H00LG | |
| Monitor Selection | CMD:HmmMS | ANS:HmmMS | mm=Monitor No. |
| Camera Selection | CMD:HmmCScc<br>CMD:HmmCS+1<br>CMD:HmmCS-1 | ANS:HmmCScc<br>ANS:HmmCS+1<br>ANS:HmmCS-1 | mm=Monitor No.<br>cc=Camera No.<br>+1=To the next camera (Next)<br>-1=To the previous camera (Prev) |
| Starting tour sequence | CMD:HmmSTnn | ANS:HmmSTnn | mm=Monitor No.<br>nn=Tour sequence No.<br>nn=00 Recorder sequence ON when the recorder is selected. |
| Starting group sequence | CMD:H00SGn | ANS:H00SGn | n=Group sequence No. |
| Pausing sequence (PAUSE) | CMD:HmmSP | ANS:HmmSPn | mm=Monitor No.<br>n=0 (SEQUENCE), 1 (PAUSE) |
| Stopping sequence (STOP) | CMD:HmmSO | ANS:HmmSO | mm=Monitor No. |
| Sequence increment (NEXT) | CMD:HmmSI | ANS:HmmSI | mm=Monitor No.<br>Available only during sequence pause |
| Sequence decrement (PREV) | CMD:HmmSD | ANS:HmmSD | mm=Monitor No.<br>Available only during sequence pause |
| Priority lock | CMD:HmmPR | ANS:HmmPRn | Transmission command toggles priority lock ON or OFF.<br>mm=Monitor No.<br>n=0 (OFF)<br>n=1 (ON) |
| OSD display ON / OFF<br>or<br>Moving OSD display position | CMD:Hmmss(o) | ANS:HmmALn | Transmission command toggles OSD display ON or OFF.<br>Use (o) parameter when moving OSD display position.<br>mm=Monitor No.<br><br>ss=AL All OSD items ON/OFF<br>ss=TM Time & date ON/OFF<br>ss=TL Camera title ON/OFF<br>ss=TE Event ON/OFF<br>ss=TO Monitor status ON/OFF<br><br>o=U Moving upward<br>o=D Moving downward<br>o=L Moving leftward<br>o=R Moving rightward<br><br>n=0 Displayed<br>n=1 Not displayed |
| History or status display ON/OFF | CMD: Hmmss | ANS: Hmmssn | mm=Monitor No.<br>ss=DA Alarm history ON/OFF<br>ss=DV Video loss history ON/OFF<br>ss=DS System status ON/OFF<br><br>n=0 Displayed<br>n=1 Not displayed |

## Alarm Control

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Alarm input | OAIcc | No response | cc=Alarm No. |
| Alarm ACK (Each monitor) | CMD:HmmAK | ANS:HmmAK | mm=Monitor No. |
| Alarm reset (Each monitor) | CMD:HmmAR | ANS:HmmAR | mm=Monitor No. |
| Alarm all reset | CMD:H00AR | ANS:H00AR | |
| Alarm suspension | MAD | madn | Transmission command toggles alarm suspension ON or OFF.<br>n=0 OFF<br>n=1 ON |

## Setup Control

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Display SETUP MENU | CMD:HmmSS | ANS:HmmSS | mm=Monitor No. |
| Return to normal view* | CMD:HmmSE | ANS:HmmSE | mm=Monitor No.<br>*Available only in SETUP MENU |
| Move the cursor leftward | CMD:AmmJL | — | mm=Monitor No. |
| Move the cursor rightward | CMD:AmmJR | — | mm=Monitor No. |
| Move the cursor upward | CMD:AmmJU | — | mm=Monitor No. |
| Move the cursor downward | CMD:AmmJD | — | mm=Monitor No. |
| Enter "0" | CMD:AmmT0 | — | mm=Monitor No. |
| Enter "1" | CMD:AmmT1 | — | mm=Monitor No. |
| Enter "2" | CMD:AmmT2 | — | mm=Monitor No. |
| Enter "3" | CMD:AmmT3 | — | mm=Monitor No. |
| Enter "4" | CMD:AmmT4 | — | mm=Monitor No. |
| Enter "5" | CMD:AmmT5 | — | mm=Monitor No. |
| Enter "6" | CMD:AmmT6 | — | mm=Monitor No. |
| Enter "7" | CMD:AmmT7 | — | mm=Monitor No. |
| Enter "8" | CMD:AmmT8 | — | mm=Monitor No. |
| Enter "9" | CMD:AmmT9 | — | mm=Monitor No. |
| SET | CMD:AmmST | — | mm=Monitor No. |
| ESC | CMD:AmmES | — | mm=Monitor No. |
| INC | CMD:AmmIN | — | mm=Monitor No. |
| DEC | CMD:AmmDE | — | mm=Monitor No. |
| NEXT | CMD:AmmNX | — | mm=Monitor No.<br>Available in SETUP MENU, Alarm History and Video Loss History |
| PRE | CMD:AmmPR | — | mm=Monitor No.<br>Available in SETUP MENU, Alarm History and Video Loss History |
| Reset a motion-detection area one by one | CMD:AmmCL | — | mm=Monitor No.<br>Same function as pressing the CLEAR button |
| Reset all motion-detection areas of a camera channel | CMD:AmmCV | — | mm=Monitor No.<br>Same function as pressing the CLEAR button while holding down the SHIFT button |

## Camera Control

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| PAN/TILT | CMD:CmmPTccxxyy | — | mm=Monitor No.<br>cc=Camera No.<br>• Panning speed<br>xx=00 STOP<br>xx=01 to 40(HEX) + direction panning<br>(Max is 40 and min is 01)<br>xx=81 to C0(HEX) - direction panning<br>(Max is C0 and min is 81)<br>• Tilting speed<br>yy=00 STOP<br>yy=01 to 40(HEX) + direction tilting<br>(Max is 40 and min is 01)<br>yy=81 to C0(HEX) - direction tilting<br>(Max is C0 and min is 81) |
| Zoom | CMD:CmmZMccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 STOP<br>n=1 TELE<br>n=2 WIDE |
| Focus | CMD:CmmFCccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 STOP<br>1 NEAR<br>2 FAR<br>3 AUTO FOCUS |
| Iris | CMD:CmmIRccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 STOP<br>n=1 OPEN<br>n=2 CLOSE<br>n=3 AUTO IRIS |

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Camera's SETUP MENU | CMD:CmmCMccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 OFF<br>n=1 ON<br><br>The following commands are available in SETUP MENU:<br>CMD:AmmJL (Move the cursor leftward)<br>CMD:AmmJR (Move the cursor rightward)<br>CMD:AmmJU (Move the cursor upward)<br>CMD:AmmJD (Move the cursor downward)<br>CMD:AmmST (SET)<br>CMD:AmmES (ESC)<br>CMD:AmmIN (RESET)<br>CMD:AmmDE (ALL RESET) |
| Call Preset Position | CMD:CmmPMccnn | — | mm=Monitor No.<br>cc=Camera No.<br>nn=01 to 64 Preset position No.<br>nn=00 Home position |
| Program Preset Position | CMD:CmmPSccnn | — | mm=Monitor No.<br>cc=Camera No.<br>nn=01 to 64 Preset position No. |
| Color/BW | CMD:CmmBWccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 OFF (Color)<br>n=1 ON (BW) |
| Patrol | CMD:CmmPAccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 STOP<br>n=1 PLAY<br>n=2 LEARN |
| Camera Function | CMD:CmmCFccnnn | — | mm=Monitor No.<br>cc=Camera No.<br>nnn=Camera function No. (001 to 256) |
| Auto Panning | CMD:CmmAPccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 AUTO PAN<br>n=1 AUTO SORT<br>n=2 AUTO SEQ |
| Wiper | CMD:CmmWPccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 OFF<br>n=1 ON |
| Defroster | CMD:CmmDFccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 OFF<br>n=1 ON |
| AUX1 | CMD:CmmA1ccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 OFF<br>n=1 ON |
| AUX2 | CMD:CmmA2ccn | — | mm=Monitor No.<br>cc=Camera No.<br>n=0 OFF<br>n=1 ON |

## Recorder Control

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Recorder button | CMD:HmmRSnn | ANS:HmmRSnn | nn=00 Master recorder selected<br>nn=01 Slave 1 recorder selected<br>nn=02 Slave 2 recorder selected<br>nn=03 Slave 3 recorder selected<br>nn=04 Slave 4 recorder selected<br>nn=99 Recorder mode cancelled<br><br>When nn is not entered, the Master recorder is selected. |
| Multiscreen segment switching | CMD:RmmML | ANS:RmmML | mm=Monitor No. |
| Electronic Zoom | CMD:RmmZM | ANS:RmmZMn | Transmission command toggles zoom.<br><br>mm=Monitor No.<br>n=0 Zoom OFF<br>n=1 + mark display ON*<br>n=2 Two-fold zoom<br>n=4 x4Live image/Playback image<br>n=8 x8Live image/Playback image<br><br>*Available only with the Multiplexer board |
| Live/Playback image | CMD:RmmVS | ANS:RmmVSn | Necessary when using a non-Panasonic recorder with the Multiplexer board.<br><br>Transmission command changes the monitor display between live and playback image.<br>n=0 Live image<br>n=1 Playback image |
| Play | CMD:RmmPL | ANS:RmmPL | mm=Monitor No. |
| Pause | CMD:RmmPA | ANS:RmmPA | mm=Monitor No. |
| Stop | CMD:RmmSPn | ANS:RmmSPn | mm=Monitor No.<br>n=0 Stop playback<br>n=1 Stop recording |

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Still display | CMD:RmmSTcc | ANS:RmmSTccn | Available only with the Multiplexer board<br><br>Transmission command toggles still display ON or OFF.<br>mm=Monitor No.<br>cc=Camera No.<br>(cc=00 when toggling multiscreen still ON or OFF)<br>n=0 OFF<br>n=1 ON |
| FF | CMD:RmmFF | ANS:RmmFF | mm=Monitor No. |
| REW | CMD:RmmRW | ANS:RmmRW | mm=Monitor No. |
| Forward field advance | CMD:RmmFA | ANS:RmmFA | mm=Monitor No. |
| Backward field advance | CMD:RmmRA | ANS:RmmRA | mm=Monitor No. |
| Record | CMD:RmmRC | ANS:RmmRC | mm=Monitor No. |
| Index | CMD:RmmSC | ANS:RmmSC | mm=Monitor No.<br><br>Transmission command changes the monitor display between index and live image.<br><br>Setup control commands (refer to p. 154) are available while the index is displayed. |
| Search editing area | CMD:RmmTMn | ANS:RmmTMn | Available only for Record List and Thumbnail Display of WJ-HD500 Series<br><br>Transmission command toggles search editing area ON/OFF, or starts search.<br>mm=Monitor No.<br>n=0 OFF<br>n=1 ON<br>n=2 Search start |
| Group select | CMD:RmmTG | ANS:RmmTG | Available only for Record List and Thumbnail Display of WJ-HD500 Series<br><br>Transmission command selects group to be displayed.<br>mm=Monitor No. |
| Alarm search | CMD:RmmAS | ANS:RmmAS | Available only for Record List and Thumbnail Display of WJ-HD500 Series<br><br>Transmission command toggles alarm search ON or OFF.<br>mm=Monitor No. |

## Inquiry

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Model No | QID | qid:WJ-SX150A | Matrix switcher's model No. |
| Software version | QRV | qrv:*.**<br>/*.**<br>/*.**<br>/*.**<br>/*.**<br>/*.** | qrv:*.**=Unit firmware version<br>/*.**= Master unit's Multiplexer-board firmware version<br>/*.**= Slave 1 unit's Multiplexer-board firmware version<br>/*.**= Slave 2 unit's Multiplexer-board firmware version<br>/*.**= Slave 3 unit's Multiplexer-board firmware version<br>/*.**= Slave 4 unit's Multiplexer-board firmware version |
| Alarm history | QAD | qad:nnn:YYYYMMDD hhmmss:cc:ee:s | nnn=alarm-event total number (000 to 100)<br>*=Event of alarm n (n is a number).<br><br>Display pattern:<br>YYYYMMDDhhmmss:cc:ee:s<br><br>YYYY=Year<br>MM=Month<br>DD=Day<br>hh=Hour<br>mm= Month<br>ss=Second<br>cc=Alarm number (associated with the camera number: 00 when the alarm is suspended)<br>ee= Event<br>00=ALARM<br>01=ACK<br>02=RESET<br>03=ALARM SUSPEND<br>s=Daylight saving time<br>0=OFF<br>1=ON |
| Video loss history | QVD | qvd:nnn: YYYYMMDD hhmmss:cc:ee:s | nnn=video-loss total number (000 to 100)<br>*=Event of video loss n (n is a number).<br><br>Display pattern:<br>YYYYMMDDhhmmss:cc:ee:s<br><br>YYYY=Year<br>MM=Month<br>DD=Day<br>hh=Hour<br>mm= Month<br>ss=Second<br>cc=Video loss number (associated with the camera number: 00 in case of camera switching pulse loss/recovery)<br>ee= Event<br>00=Video loss<br>01=Video loss recovery<br>02=Camera switching loss<br>03=Camera switching recovery<br>04=SLAVE DOWN<br>05=SLAVE RECOVER<br>s=Daylight saving time<br>0=OFF 1=ON |

### Miscellaneous Control

| Item | Transmission Command (ASCII) | Response (ASCII) | Parameter (ASCII) |
|---|---|---|---|
| Alarm display | – | ALM:cc:a:yyyymmdd:hhmmss:b | a=Event<br>0=ALARM<br>1=ACK<br>2=RESET<br>yyyy=Year<br>mm=Month<br>dd=Day<br>hh=Hour<br>ss=Second<br>b=Daylight saving time<br>0=OFF<br>1=ON |

# ■ Error Code List

## ● Matrix switcher and external devices

| Error code(ASCII) | Error type | Meaning |
|---|---|---|
| ER000 | No error | There is no error. |
| ER001 | No associated command | There is no associated command. |
| ER002 | Parameter invalid | The parameter's number, digit and range are invalid. |
| ER003 | Receiver buffer's overflow | The receiver buffer has reached overflow capacity. |
| ER301 | Command invalid | Invalid operation mode caused the command error. |
| ER302 | Parameter invalid | The parameter's number, digit and range are valid, but the operation mode is invalid. |
| ER303 | Gateway reception overflow | Reception buffer overflow has occurred on the other device during the gateway communication. |
| ER305 | Gateway timeout error | Timeout error has occurred during the gateway communication. |
| ER309 | Internal error | The internal processing error has happened. |

Example: The command is valid but it cannot be executed.

(1) The unit receives the zoom command while selecting a camera without electronic zoom function.

Transmission Command (ASCII) [STX] CMD:R01ZM [ETX]

Transmission Command (ASCII) [STX] ANS:R01ZM:ER301 [ETX]

# WORKSHEETS

Gathering information for the initial configuration and recording on the following worksheets are recommended. Then, if settings need to be modified or updated later because of a change in surveillance needs or changes made in the system's components, those worksheets can be used to track revisions to your system.
You should keep all revised worksheets. Be sure to date them, in preparation for new entry or troubleshooting. Regardless of the system size, the worksheets can track past, current, and future configurations.

## ■ Instruction

Each worksheet's title is the same as that of WJ-SX150A Administrator Console.
For example, the "Operator Registration" worksheet supports the "Operator Registration" window.
The worksheets' rows, columns, and fields are arranged to match WJ-SX150A Administrator Console configuration requirements.

1. Reproduce the worksheets. You may need dozens of copies.
2. Reproduce instructions for the configuration windows . You can attach the portions of instructions to the worksheets.

To keep record of the initial configuration of the system, date the "Data Completed" line on the top left of each sheet.

# ■ Checklist

It is recommended that the worksheets be completed in the following sequence:

Date completed: ___/ ___/ ___

## ● Master-Slave

| Master | ON |
|---|---|
| Slave 1 | ON/OFF |
| Slave 2 | ON/OFF |
| Slave 3 | ON/OFF |
| Slave 4 | ON/OFF |

## ● Logical Camera Number

**Normal connection (one unit only)**

| Camera | LCN |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |

**Master and Slave 1**

| | LCN | |
|---|---|---|
| Camera | Slave 1 | Master |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |

**Master, Slave 1 and Slave 2**

| | LCN | | |
|---|---|---|---|
| Camera | Slave 1 | Slave 2 | Master |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
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| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |

**Master and Slave 1 to 3**

| | LCN | | | |
|---|---|---|---|---|
| Camera | Slave 1 | Slave 2 | Slave 3 | Master |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |

**Master and Slave 1 to 4**

| | LCN | | | |
|---|---|---|---|---|
| Camera | Slave 1 | Slave 2 | Slave 3 | Slave 4 |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
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| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |

## ● Tour Sequence

Tour __ / 32

| Step | LCN | Preset position | Dwell time | Remark |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |
| 23 | | | | |
| 24 | | | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |
| 28 | | | | |
| 29 | | | | |
| 30 | | | | |
| 31 | | | | |
| 32 | | | | |

Tour __ / 32

| Step | LCN | Preset position | Dwell time | Remark |
|---|---|---|---|---|
| 33 | | | | |
| 34 | | | | |
| 35 | | | | |
| 36 | | | | |
| 37 | | | | |
| 38 | | | | |
| 39 | | | | |
| 40 | | | | |
| 41 | | | | |
| 42 | | | | |
| 43 | | | | |
| 44 | | | | |
| 45 | | | | |
| 46 | | | | |
| 47 | | | | |
| 48 | | | | |
| 49 | | | | |
| 50 | | | | |
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| 52 | | | | |
| 53 | | | | |
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| 55 | | | | |
| 56 | | | | |
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| 59 | | | | |
| 60 | | | | |
| 61 | | | | |
| 62 | | | | |
| 63 | | | | |
| 64 | | | | |

## ● Group Sequence

| Group | Monitor 1 | Monitor 2 | Monitor 3 | Monitor 4 |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |

## ● Timer Event

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Schdule Mode | Daily | | Every | Hour | | Minute | |
| | Weekly | | Every | Sunday | | | |
| | | | | Monday | | | |
| | | | | Tuesday | | | |
| | | | | Wednesday | | | |
| | | | | Thursday | | | |
| | | | | Friday | | | |
| | | | | Saturday | | | |
| | Monthly | | Every | Day# | | | |
| Action | Tour Sequence | | Monitor# | | | Tour# | |
| | Spot Camera | | Logical Camera Number | | | Preset Position# | |

## ● Camera Auto Cleaning

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Schdule Mode | Daily | | Every | Hour | | Minute | | | |
| | Weekly | | Every | Sunday | | | | | |
| | | | | Monday | | | | | |
| | | | | Tuesday | | | | | |
| | | | | Wednesday | | | | | |
| | | | | Thursday | | | | | |
| | | | | Friday | | | | | |
| | | | | Saturday | | | | | |
| | Monthly | | Every | Day# | | | | | |
| Auto Cleaning Camera | Cam #1 | | Cam #5 | | | Cam #9 | | Cam #13 | |
| | Cam #2 | | Cam #6 | | | Cam #10 | | Cam #14 | |
| | Cam #3 | | Cam #7 | | | Cam #11 | | Cam #15 | |
| | Cam #4 | | Cam #8 | | | Cam #12 | | Cam #16 | |

## ● Daylight Saving Time

| | Start | End |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | Start | End |
|---|---|---|
| | | |
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## ● Alarm Mode

| Alarm Mode | Dwell |
|---|---|
| OFF | |
| Sequence Mode | sec. |
| Hold Mode | |

| Auto Reset Time | sec. |
|---|---|

| Alarm Input | |
|---|---|
| Camera Site Alarm | OFF / ON / REC only |
| Alarm Port | OFF / ON / REC only |
| Serial Port | OFF / ON / REC only |
| Mux Motion Det | OFF / ON / REC only |

## ● Sensitivity

| Camera | LCN | Level |
|---|---|---|
| 1 | | OFF/LOW/MID/HIGH |
| 2 | | OFF/LOW/MID/HIGH |
| 3 | | OFF/LOW/MID/HIGH |
| 4 | | OFF/LOW/MID/HIGH |
| 5 | | OFF/LOW/MID/HIGH |
| 6 | | OFF/LOW/MID/HIGH |
| 7 | | OFF/LOW/MID/HIGH |
| 8 | | OFF/LOW/MID/HIGH |
| 9 | | OFF/LOW/MID/HIGH |
| 10 | | OFF/LOW/MID/HIGH |
| 11 | | OFF/LOW/MID/HIGH |
| 12 | | OFF/LOW/MID/HIGH |
| 13 | | OFF/LOW/MID/HIGH |
| 14 | | OFF/LOW/MID/HIGH |
| 15 | | OFF/LOW/MID/HIGH |
| 16 | | OFF/LOW/MID/HIGH |

## ● Alarm Event

| | | Alam Event | | | Alam Port | |
|---|---|---|---|---|---|---|
| ALM# | Monitor# | LCN/Tour | Num | Pre | Master/Slave | Num |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
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| 31 | | | | | | |
| 32 | | | | | | |
| 33 | | | | | | |

| | | Alam Event | | | Alam Port | |
|---|---|---|---|---|---|---|
| ALM# | Monitor# | LCN/Tour | Num | Pre | Master/Slave | Num |
| 34 | | | | | | |
| 35 | | | | | | |
| 36 | | | | | | |
| 37 | | | | | | |
| 38 | | | | | | |
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| 64 | | | | | | |
| 65 | | | | | | |
| 66 | | | | | | |

| | | Alam Event | | | Alam Port | |
|---|---|---|---|---|---|---|
| ALM# | Monitor# | LCN/Tour | Num | Pre | Master/Slave | Num |
| 67 | | | | | | |
| 68 | | | | | | |
| 69 | | | | | | |
| 70 | | | | | | |
| 71 | | | | | | |
| 72 | | | | | | |
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| 97 | | | | | | |
| 98 | | | | | | |
| 99 | | | | | | |

## ● Alarm Port

| Alarm # | Alarm Port |
|---|---|
| 1 | N.O./N.C./Time |
| 2 | N.O./N.C./Time |
| 3 | N.O./N.C./Time |
| 4 | N.O./N.C./Time |
| 5 | N.O./N.C./Time |
| 6 | N.O./N.C./Time |
| 7 | N.O./N.C./Time |
| 8 | N.O./N.C./Time |
| 9 | N.O./N.C./Time |
| 10 | N.O./N.C./Time |
| 11 | N.O./N.C./Time |
| 12 | N.O./N.C./Time |
| 13 | N.O./N.C./Time |
| 14 | N.O./N.C./Time |
| 15 | N.O./N.C./Time |
| 16 | N.O./N.C./Time |

## ● Operator Registration

| Operator# | ID | Password | Level | Priority | Camera Access | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Timer | — | — | — | | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 1 | | | 1 | 1 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | |

Camera Access
1: View & Control 2: View Only 3: Prohibited

## ● Level Table

| Control | Level 1 | Level 2 | Level 3 |
|---|---|---|---|
| SX150A Setup | ☐ | ☐ | ☐ |
| Camera Setup | ☐ | ☐ | ☐ |
| Program Preset Position | ☐ | ☐ | ☐ |
| Camera Control | ☐ | ☐ | ☐ |
| Camera Selection | ☐ | ☐ | ☐ |
| Recorder Setup | ☐ | ☐ | ☐ |
| Recorder Control | ☐ | ☐ | ☐ |
| All Alarm Reset | ☐ | ☐ | ☐ |
| Single Alarm Reset | ☐ | ☐ | ☐ |
| Alarm Suspend | ☐ | ☐ | ☐ |
| Call Sequence | ☐ | ☐ | ☐ |
| Alarm History Display | ☐ | ☐ | ☐ |
| Video Loss History Display | ☐ | ☐ | ☐ |
| System Status Display | ☐ | ☐ | ☐ |
| OSD Control | ☐ | ☐ | ☐ |

## ● Monitor Selection

| | Monitor 1 | Monitor 2 | Monitor 3 | Monitor 4 |
|---|---|---|---|---|
| Terminal_K1 | OK / NG | OK / NG | OK / NG | OK / NG |
| Terminal_K2 | OK / NG | OK / NG | OK / NG | OK / NG |
| Terminal_K3 | OK / NG | OK / NG | OK / NG | OK / NG |
| Terminal_K4 | OK / NG | OK / NG | OK / NG | OK / NG |
| PC | OK / NG | OK / NG | OK / NG | OK / NG |

## ● Auto Log-in/Log-out

| Auto Log-in | | Auto Log-out | | Minute(s) |
|---|---|---|---|---|
| Terminal_K1 | | Terminal_K1 | | |
| Terminal_K2 | | Terminal_K2 | | |
| Terminal_K3 | | Terminal_K3 | | |
| Terminal_K4 | | Terminal_K4 | | |

## ● Cable Compensation/VD2

| Camera # | Cable Compensation | VD2 | DATA |
|---|---|---|---|
| Cam 1 | S / M / L | ON / OFF | ON / OFF |
| Cam 2 | S / M / L | ON / OFF | ON / OFF |
| Cam 3 | S / M / L | ON / OFF | ON / OFF |
| Cam 4 | S / M / L | ON / OFF | ON / OFF |
| Cam 5 | S / M / L | ON / OFF | ON / OFF |
| Cam 6 | S / M / L | ON / OFF | ON / OFF |
| Cam 7 | S / M / L | ON / OFF | ON / OFF |
| Cam 8 | S / M / L | ON / OFF | ON / OFF |
| Cam 9 | S / M / L | ON / OFF | ON / OFF |
| Cam 10 | S / M / L | ON / OFF | ON / OFF |
| Cam 11 | S / M / L | ON / OFF | ON / OFF |
| Cam 12 | S / M / L | ON / OFF | ON / OFF |
| Cam 13 | S / M / L | ON / OFF | ON / OFF |
| Cam 14 | S / M / L | ON / OFF | ON / OFF |
| Cam 15 | S / M / L | ON / OFF | ON / OFF |
| Cam 16 | S / M / L | ON / OFF | ON / OFF |

## ● Camera Title

| | Camera ID (Up to 20 characters) |
|---|---|
| Cam 1 | |
| Cam 2 | |
| Cam 3 | |
| Cam 4 | |
| Cam 5 | |
| Cam 6 | |
| Cam 7 | |
| Cam 8 | |
| Cam 9 | |
| Cam 10 | |
| Cam 11 | |
| Cam 12 | |
| Cam 13 | |
| Cam 14 | |
| Cam 15 | |
| Cam 16 | |

## ● Data Port

| RS485 Port | Protocol | Baud Rate |
|---|---|---|
| RS485 | Camera | bps |
| DATA 1 | Camera/Terminal_K1/K2/K3/K4 | bps |
| DATA 2 | Camera/Terminal_K1/K2/K3/K4 | bps |
| DATA 3 | Camera/Terminal_K1/K2/K3/K4 | bps |
| DATA 4 | PS·Data/Terminal_K1/K2/K3/K4 | bps |

RS485 Camera Daisy

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| PS·Data mode (for DATA 4) | |
|---|---|
| Logout Time | sec. |
| Alarm Data | sec. |
| Wait Time | |
| Group Address | |

## ● Recorder

| | |
|---|---|
| Recorder Control | OFF/HD100/HD200/HD500/VCR |
| Unit Address | |
| EXT IN | Genlock off/on |

## ● Multiplexer

| Multi Monitor Out | | | |
|---|---|---|---|
| | Still Display | | |
| | Border Color | WHITE/GRAY/BLACK/OFF | |
| | Quad Shift | | |
| | Secret View | | |
| | Sequence Mode | Quad / 3+1 / 8+1 | s |

| REC Out (Normal) | | | | |
|---|---|---|---|---|
| | REC MODE | | EXT | |
| | | | INT | Fields |
| | Title Display | | | |
| | Clock Display | | | |

| REC Out (Alarm) | | | | |
|---|---|---|---|---|
| | REC MODE | | EXT | |
| | | | INT | Fields |
| | Dynamic REC | OFF / ALM-PRI / ALM-ONLY / GROUP | | |

GROUP

| | Cam | Cam | Cam | Cam |
|---|---|---|---|---|
| Group 1 | | | | |
| Group 2 | | | | |
| Group 3 | | | | |
| Group 4 | | | | |
| Group 5 | | | | |
| Group 6 | | | | |
| Group 7 | | | | |
| Group 8 | | | | |
| Group 9 | | | | |
| Group 10 | | | | |
| Group 11 | | | | |
| Group 12 | | | | |
| Group 13 | | | | |
| Group 14 | | | | |
| Group 15 | | | | |
| Group 16 | | | | |

| System | | |
|---|---|---|
| | Camera SW Loss | |
| | Dummy Black | |

| Multiplexer Title | | |
|---|---|---|
| | Cam1 | |
| | Cam2 | |
| | Cam3 | |
| | Cam4 | |
| | Cam5 | |
| | Cam6 | |
| | Cam7 | |
| | Cam8 | |
| | Cam9 | |
| | Cam10 | |
| | Cam11 | |
| | Cam12 | |
| | Cam13 | |
| | Cam14 | |
| | Cam15 | |
| | Cam16 | |

# SPECIFICATIONS

| | |
|---|---|
| Power Source: | 120 V AC, 60 Hz |
| Power Consumption: | 60 W |
| Camera Input (1 to 16): | 1.0 V[p-p]/75 Ω composite video signal |
| | 0.5 V[p-p]/75 Ω data signal and 2.5 V[p-p]/75 Ω vertical timing pulse multiplexed |
| Camera Output (1 to 16): | 1.0 V[p-p]/75 Ω composite video signal |
| Monitor Output (1 to 4): | 1.0 V[p-p]/75 Ω composite video signal |
| External Input (PLAY IN): | 1.0 V[p-p]/75 Ω composite video signal |
| External Output (REC OUT): | 1.0 V[p-p]/75 Ω composite video signal* |
| RS-485 (Camera) Port: | RS-485 6-conductor modular jack |
| Data Port: | RS-485 6-conductor modular jack |
| Alarm Port: | 25-pin D-sub connector |
| Serial Port: | 9-pin D-sub connector |
| Camera Switching Input: | RCA pin jack* |
| Ambient Operating Temperature: | –10 °C to +50 °C (14 °F to 122 °F) |
| Ambient Operating Humidity: | Less than 90 % |
| Dimensions: | 420 mm (W) X 88 mm (H) X 350 mm (D) |
| | [16-9/16" (W) X 3-7/16" (H) X 13-3/4" (D)] |
| Weight: | 6.0 kg (13.2 lbs.) |

*Available only when the Multiplexer board is installed

# STANDARD ACCESSORIES

Rack Mounting Bracket ..... 2 pcs.
Screws (M4 x 10) ..... 4 pcs.
Power Cable ..... 1 pc.
CD-ROM ..... 1 pc.
Crossing modular cable ..... 1 pc.

# OPTIONAL ACCESSORIES

Cable kit ..... WV-CA48/10K

**Panasonic Digital Communications & Security Company**
Unit of Matsushita Electric Corporation of America

**Security Systems Group**
www.panasonic.com/cctv

**Executive Office:** One Panasonic Way 3E-7, Secaucus, New Jersey 07094
**Zone Office**
**Eastern:** One Panasonic Way, Secaucus, NJ 07094 (201) 348-7303
**Central:** 1707 N.Randal Road, Elgin, IL 60123 (847) 468-5205
**Western:** 6550 Katella Ave., Cypress, CA 90630 (714) 373-7840

**PANASONIC CANADA INC.**
5770 Ambler Drive, Mississauga,
Ontario, L4W 2T3 Canada (905)624-5010
**PANASONIC SALES COMPANY**
**DIVISION OF MATSUSHITA ELECTRIC OF PUERTO RICO INC.**
San Gabriel Industrial Park 65th Infantry Ave. KM. 9.5 Carolina,
P.R. 00985 (809)750-4300

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